A CLIMBER'S GUIDE
TO THE
ROCKY MOUNTAINS
OF
CANADA

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A CLIMBER'S GUIDE TO

THE ROCKY MOUNTAINS OF CANADA

BY
HOWARD PALMER
AND
J. MONROE THORINGTON

SECOND EDITION

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by
Howard Palmer
and
J. Monroe Thorington

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Our present world is a world of remarkable civilisation, but it is not very natural and not very happy. We need yet some snatches of the life of youth—to be for a season simply happy and simply healthy. We need to draw sometimes great draughts of simplicity and beauty. We need sometimes that poetry should be not droned into our ears, but flashed into our senses. And man, with all his knowledge and his pride, needs sometimes to know nothing and to feel nothing, but that he is a marvellous atom in a marvellous world.

FREDERIC HARRISON.

PREFACE

IN PRESENTING a second edition of "A Climber's Guide to the Rocky Mountains of Canada," the authors are actuated by several motives. In the nine years that have elapsed since the appearance of the first edition a great deal of climbing has been done, including a multitude of new ascents. The alpine literature has increased correspondingly. In addition, the work of the Interprovincial Boundary Commission has been completed to the vicinity of Jarvis Pass, where the main chain crosses the 120th meridian, and the resulting maps have greatly amplified our knowledge of the northern area.

From personal experience and from the experience of many others who have placed information of special localities at our command, we are able to correct materially data printed in the first edition, as well as to add much new matter. The entire text has been revised, rearranged and rewritten.

The plan of the book has been simplified, all peaks being listed alphabetically within their groups. A key-letter, preceding the location of a peak, indicates its oceanic watershed. The literary references have been rechecked and, in numerous instances, separated and segregated with the special routes on a given peak.

Commencing at the United States boundary, we have listed the named peaks of the Canadian Rockies above nine thousand feet in elevation as far north as Jarvis Pass, four hundred and fifty miles away. Near this point the chain makes intersection with the 120th meridian and, for the purposes of this book, it is considered the northern limit of the Canadian Rocky Mountains. The named peaks exceed six hundred. In a very few cases, where local or specialized climbing interest exists, peaks below nine thousand feet in

elevation have been included. Unnamed peaks, unless they have been ascended, are not listed unless their height exceeds ten thousand feet.

Following the name, elevation, and map-reference of each peak will be found a brief description and, wherever possible, concise directions for the climb, based generally upon the printed report of the first ascent. The names of the party and the principal references relating to the peak are also given.

Naturally, in such a vast domain, many mountains have been climbed without the publication of records and, for this reason, one has no absolute assurance that a peak has not been climbed merely because nothing has been printed about it. Lack of data in these pages is not proof positive that the ascent has never been made.

The arrangement is progressive and continuous from south to north. Part One includes the mountains from the International Boundary to the main line of the Canadian Pacific Railroad; Part Two extends the descriptions to Yellowhead Pass, crossed by the Canadian National Railroad, while Part Three embraces the region as far north as Jarvis Pass, beyond which the mountains become less typically alpine in character. These three major divisions now correspond to the texts and atlases of the Interprovincial Boundary Commission.

Particularly would we allude to the work of the latter, whose operations from 1913 to the present time have covered the entire continental watershed included in this book. Their reports and maps give the first detailed and connected description of the Canadian Rockies, but scantily mapped before, and all mountaineers will be eternally grateful for this work. Other basic maps by the Dominion Topographical Survey, Dr. J. Norman Collie, and the Alpine Club of Canada are referred to elsewhere.

For readers unfamiliar with the Canadian Rockies, it may be stated that the conditions under which mountaineering is carried on, are vastly different from those prevailing in the Alps or other frequented mountain regions. Along the railroads alone are there places that can be regarded as climbing centres. Depart from these but a little and a pack-train

must be employed, so that often far more time will be spent in travel than in actual climbing. The country away from the railroad is in a primeval state; trails are so seldom travelled that in many areas they are obstructed by fallen trees. Mountain torrents and occasional rivers must be forded, and the open gravel bars of their beds used as highways wherever possible.

There are few alpine huts, and although at several points it is possible to spend a night at a permanent camp, a light tent and a camping outfit must be brought along by the traveler who wishes to work from lofty bivouacs. Swiss guides are available at Lake Louise and Jasper, for expeditions long or short, and no more competent or agreeable companions could be desired. They have made a fine record in Canadian climbing history, most first ascents of important summits having been achieved by their aid. Their number is limited and the demand for their services great, so that arrangements should be made well in advance.

More and more of the mountain area is coming within the boundaries of National Parks, which will for all time protect their natural resources from undue exploitation. Waterton Lakes Park includes an area of 220 square miles in Alberta, adjacent to the International Boundary. Rocky Mountains Park, with an area of 2751 square miles, lies in Alberta, between Elk and Bow passes. Immediately to the west, in British Columbia, one enters Kootenay Park, with 587 square miles, and Yoho Park, with 476 square miles. Jasper Park is the largest of all. It contains 5380 square miles. Lying entirely in Alberta, it extends from twenty-five miles north of Mt. Robson to Bow and Pipestone passes on the south, where it adjoins Rocky Mountains Park. A small area, Robson Park, has been set aside in British Columbia, and contains the highest summit of the Canadian Rockies.

In the preparation of the present text we have received the aid of a group of mountaineers specially qualified by knowledge of particular districts. For information freely placed at our disposal, we are most grateful to Messrs. J. E. Johnson, W. O. Field, S. H. Mitchell and N. D. Wafil. To Dr. J. W. A. Hickson and Mr. M. P. Bridgland, whose

journeys have taken them into almost every corner of the range and to summits without number, our special thanks are due for invaluable aid generally, as well as for examining all of the proofs. To others, also, too numerous to mention separately, we express our appreciation for generous co-operation in an undertaking which has now grown beyond the scope of individual experience.

The authors have been favored with detailed comments on and reviews of the first edition by such authorities as the late Sir James Outram, the late A. L. Mumm, and A. H. MacCarthy. We believe, therefore, that the new edition forms a resonably complete compendium of existing knowledge of the range from the viewpoint of the mountaineers. It is worth recording that the first edition performed the function unusual, for a guidebook, of reporting results of original explorations, and also was the direct cause of bringing the party from Japan to conquer Mt. Alberta.

We acknowledge indebtedness to the works of Professor J. Norman Collie, Sir James Outram, Professor A. P. Coleman, Mr. Walter D. Wilcox, the Dominion Topographical Survey, and particularly to the publications of the Alpine Club of Canada and its former Director, Mr. Arthur O. Wheeler, Boundary Commissioner for British Columbia, who through his maps and explorations has done an inestimable service in laying open the treasures of this great range. To Professor Charles E. Fay, climbers owe a debt of gratitude for being one of the first to extol with voice and pen the claims of the Canadian Alps as a field for mountaineers. "Appalachia," of which Professor Fay was for many years the editor, was the first American periodical to print regularly accounts of ascents in the Canadian Rockies, and to its teeming pages one must have constant recourse in tracing the story of the conquest of the range. Another pioneer, to whom present-day mountaineers owe much, is Mr. Samuel E. S. Allen. Of his early journeys and ascents around Lake Louise and to the south, too little is remembered, although his detailed narratives are foundation stones in the history of these mountains.

Where repeated ascents of a peak have been made, the Swiss guides generally have improved on the original route.

Their advice and co-operation should be sought, as such improvements seldom find their way into print, and should not be entirely ignored even by those to whom a guideless technique in the field appeals.

HOWARD PALMER
J. MONROE THORINGTON

American Alpine Club
544 West 110th Street
New York City
May, 1930

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LIST OF AUTHORITIES

(With Reference Abbreviations as Used in the Text)

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Co.—Coleman, A. P., *The Canadian Rockies: Old Trails and New* (Unwin, 1911).

J. P.—Deville, E. and Bridgland, M. P., *Description of and Guide to Jasper Park* (Department of the Interior; Ottawa, 1917). See also, Williams, M. B., *Jasper* (Department of the Interior, 1928).

O.—Outram, J., *In the Heart of the Canadian Rockies* (MacMillan, 1903).

T.—Thorington, J. M., *The Glittering Mountains of Canada* (Lea, 1925).

W.—Wilcox, W. D., *The Rockies of Canada* (2nd edit.; Putnam, 1909).

W. (LL)—Wilcox, W. D., *Guide to the Lake Louise District* (Putnam, 1909).

A. A. J.—American Alpine Journal (New York).

ABC—Alberta—B. C. Boundary Reports and Atlases. Ottawa, 1914-29: Part I (International Boundary to Kicking Horse Pass); Part II (Kicking Horse Pass to Yellowhead Pass); Part III (Yellowhead Pass to intersection with 120th Meridian). These volumes correspond with the three major divisions of this Guidebook.

A. J.—Alpine Journal (London).

Alp. Amer.—Alpina Americana, No. 2. Fay, C. E., *The Rocky Mountains of Canada* (Williams and Wilkins, 1911).

App.—Appalachia (Boston).

C. A. J.—Canadian Alpine Journal (Banff).

D. Ö. A. V.—Yearbook, German-Austrian Alpine Club (Munich).

G. J.—Geographical Journal (London).

H. M.—Harvard Mountaineering (Boston).
Mazama—The Mazamas (Portland).
Mountaineer—The Mountaineers (Seattle).
RDI.—Annual Report, Department of the Interior, Ottawa.
Sierra—Sierra Club Bulletin (San Francisco).
TSB.—Annual Report, Topographical Surveys Branch, Ottawa.

Useful summaries of climbing in the Canadian Rocky Mountains will be found in the following:

Fay, C. E., *Recent Mountaineering in the Canadian Alps* (Geographical Review, New York, ii, 1). Map and illustrations. Covers period 1906-15.

Hickson, J. W. A., *Mountaineering in the Canadian Alps* (Appalachia, Boston, xix, 230). Maps and illustrations. Covers period 1906-25.

Following the names of a given peak, the first bracketed number indicates the elevation in feet; the second bracket, the Boundary Commission sheet or other map reference. The bracketed letter immediately preceding the location of the peak indicates its oceanic drainage slope: (A—Atlantic; P—Pacific; Ar—Arctic); peaks captioned (A-P) or (Ar-P) are on the Continental Divide. Peaks indicated as (A-Ar) are located along the watershed between the Saskatchewan and Athabaska rivers. The hydrographic apex (The Snow Dome) is indicated by (A-Ar-P).

Names of professional guides are in italics.

PRINCIPAL MAPS OF THE CANADIAN ROCKY MOUNTAINS

From the International Boundary to the Canadian Pacific Railroad (Kicking Horse Pass).

*1. Atlas accompanying Report of Alberta-British Columbia Boundary Commission. Part I, 1917. Sheets 1-16; scale 1 : 62500.

*2. Waterton Lakes Park (1918); scale 1 : 100000.

3. Sheet 1962. Geological Survey (1922); scale 1 : 126720. Joffe and Royal Groups.

*4. Map of Banff and Vicinity; scale 1 : 63360.

5. Sheet 142A. Geological Survey (1915). Ottertail Group.

*6. Sheet 20 (Calgary). Standard Topographical Series (1925); scale 1 : 500000. International Boundary to Canadian Pacific Railroad.

*7. Map of Rocky Mountains Park (1911). Palliser Pass to Bow Pass.

*8. Preliminary Map of Rocky Mountains Park (1922); scale 1 : 200000. Mt. Joffre to Bow Pass. Also (reduced), App. xvi, 240.

*9. Map of Rocky Mountains Park (1923); scale 1 : 200000.

*10. Yoho Park (1921); scale 1 : 120000. Lake Louise and Ottertail Groups.

*11. Rocky Mountains between Lat. 51° and 53° 10′ (1910); scale 1 : 253440. Two sheets.

12. Map of Part of Main Range of Canadian Rockies adjacent to the Canadian Pacific Railroad (1903-7); scale 1 : 160000. Alp. Amer. (1911); W. (1909).

*13. Map of the Rocky and Selkirk Mountains, between Lat. 50° 37′ and 51° 44′ N. and Long. 115° 55′ and 118° 21′ W. (1914); scale 1 : 125000. Eastern sheet.

*14. Sectional Map 163 (Donald); scale 1 : 190080. 1914.

* Obtainable from Surveyor General, Ottawa.

*15. Province of Alberta (1922); scale 1 : 792000. International Boundary to Lat. 54° N.
16. Diagram Map of the Canadian Alps (1926). App. xvi, 252.
17. Surroundings of Fay Hut. A. A. J. i, 48; C. A. J. xvii, 80.

From the Canadian Pacific to the Canadian National Railroad.

*1. Atlas accompanying Report of Alberta-British Columbia Boundary Commission. Part II, 1921. Sheets 17-29; scale 1 : 62500.
*2. Sheet 19 (Kootenay), Standard Topographical Series (1924); scale 1 : 500000. Canadian Pacific Railroad to Mt. Alexandra.
*3. Sheet 45 (Jasper), Standard Topographical Series (1926); scale 1 : 500000. Mt. Bryce to Mt. Robson.
4. Maps accompanying Collie, J. N. and Stutfield, H. E. M., *Climbs and Exploration in the Canadian Rockies* (1903). Also, G. J. xxi, 588.
5. Maps accompanying Outram, J., *In the Heart of the Canadian Rockies* (1906).
6. Maps accompanying Coleman, A. P., *The Canadian Rockies: Old Trails and New* (1911).
7. Sketch Map Showing Principal Peaks at Headwaters of Clearwater and Siffleur Rivers (1927), by W. O. Field. H. M. i, 1, 11.
8. Map of Yoho Group. C. A. J. i, 1, 151.
*9. Sectional Map 213 (Athabaska); scale 1 : 190080. 1914.
10. Map of the Columbia Icefield. C. A. J. xiv, 47.
*11. Map of Central Part of Jasper Park (1915), by M. P. Bridgland. Six sheets; scale 1 : 62500. Also in one sheet (1923); scale 1 : 125000.
12. Sketch Map of the Canadian Rockies between Wood and Sullivan Rivers (1922), by A. Carpe. C. A. J xiii, 93.

* Obtainable from Surveyor General, Ottawa.

13. Clemenceau Glacier: Columbia, Chaba, and Whirlpool Areas (1927), by A. J. Ostheimer, III. C. A. J. xvi, 42; H. M. i, 2, 58.
14. Sketch Diagram of Canadian Rocky Mountains between Bush and Yellowhead Passes (1924), by A. Carpe and H. Palmer. A. J. xxxvi, 94; App. xvi, 258.
15. Sketch Map of Maligne Lake. A. J. xvi, 99; C. A. J. iv, 95; G. J. xxxix, 380.
16. Map of Maligne Lake (1924), by A. Carpe. A. A. J. i, 58.
17. Topographical Sketch of the Maligne Group; scale 1 : 100000 (1929), by M. M. Strumia. A. J. xli, 340.
18. Sheet 201 A (Mountain Park), Geological Survey (1929); scale 1 : 63360.
19. Official Trail Riders Map of the Canadian Rockies. Rand McNally and Co. Covers Mountain Parks of Western Canada.

From the Canadian National Railroad (Yellowhead Pass) to Jarvis Pass.

*1. Atlas accompanying Report of the Alberta British Columbia Boundary Commission. Part III, 1930. Sheets 30-34 (for peaks presenting alpine characteristics); scale 1 : 62500.
2 Preliminary Map of the Canadian Rocky Mountains (52° 53′ N.—54° 9′ N.); scale 1 : 300000. Bull. Am. Geogr. Soc. xlvii (1915).
3. Map of Area between Canadian National Railroad and Bess Pass. G. J. xxxix, 238.
4. Topographical Map Showing Mt. Robson and the Rocky Mountains adjacent to Yellowhead Pass (1912); scale 1 : 120000. A. J. xxvi, 404; C. A. J. iv.
*5. Sectional Map 262 (Yellowhead); scale 1 : 190080. 1916.
6. Whitehorn Group. C. A. J. xvi, 206.

*Obtainable from Surveyor General, Ottawa.

Part One

INTERNATIONAL BOUNDARY TO KICKING HORSE PASS

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PART ONE

SECTION I

Akamina Pass to Tornado Pass

BLAKISTON GROUP

The airline distance from the International Boundary to Tornado pass approximates seventy-five miles. Broadly speaking, this section of the range lies between the drainage of Flathead and Elk rivers on the west and that of Waterton and Livingstone rivers on the east. The principal passes crossing the Divide are Akamina, the Kootenay series (South, Middle, and North), Ptolemy, the Crowsnest series (Tent, Crowsnest, and Phillips), North Fork and Tornado. The average altitude of peaks on the Divide is under 9000′, Mt. Ptolemy (9234), the highest peak S. of Crowsnest pass, and Mt. Erris (9320), the highest peak N. of that pass, being exceptions.

E. of the Divide, Mt. Blakiston (9600) is the highest summit in the area, while W. of the Divide no peak reaches 9000′.

The Crowsnest series of passes forms the divisional point between the Flathead range on the S. and the High Rock range on the N. W. of the Divide, the Government road to the International Boundary forms a convenient means of access to the peaks and passes of the Divide, while on the Alberta side, a pack-trail extends S. as far as North Kootenay pass. Outfits may be taken from Pincher station, C.P.R., to the International Boundary in about three days.

From the Crowsnest area, pack-trails also extend N., close to the Divide, and on both sides of it, by which North Fork and Tornado passes may be reached. Many of the trails are in bad condition owing to fallen timber.

Mt. Blakiston. (9600) (1)

(A) Five mi. N. of Akamina pass; S. of Blakiston brook; five mi. E. of S. Kootenay pass. ABC, 92.

Crowsnest Mt. (9138) (4)

(A) Isolated peak W. of Livingstone range; seven mi. N. E. of Crowsnest pass. ABC, 62; C. A. J. i, 1, 108; vii, 117.

1904 first ascent by E. Whymper, T. Wilson and two Swiss guides.

Route 1. From Coleman station, C.P.R., follow Oldman river for five mi. to W.; turn N. by trail leading to deserted lumber camp. Work above timberline across W. slopes to base of cliffs at N. W. angle. A series of chimneys penetrates the first cliff belt (400') to shale slopes leading to final dome, 1000' above.

Route 2. On N. a large couloir offers a passage through the cliff belt. Much loose stone.

Mt. Darrah *(Gable).* (9038) (3)

(A-P) Four mi. S. E. of Corbin station, C.P.R., ABC, 71, 74.

1914 first ascent by the Boundary Commission.

Mt. Erris. (9320) (5)

(A-P) Highest point between North Fork and Crowsnest passes; three mi. S. of North Fork pass. ABC, 96, 105.

1913 first ascent by the Topographical Survey.

Gould Dome. (9495) (5)

(A) S. of Tornado pass; two mi. E. of North Fork pass. C. A. J., viii, 136.

1913 first ascent by the Topographical Survey.

Mt. Kirby and Spence. (9290) (Dawson)

(P) S. W. angle of Kishinena creek and Akamina brook; four mi. S. W. of S. Kootenay pass. Dawson (Part B, 1885), 12, 51.

Mt. Ptolemy *(Mummy).* (9234) (4a)
(A-P) Apex of Flathead range; three mi. E. of Ptolemy pass; six mi. S. of Crowsnest lake. ABC, 60, 68.
1914 first ascent by the Boundary Commission.

Mt. Yarrell. (?9000) (Dawson)
(P) N. of Kishinena creek; five mi. W. of S. Kootenay pass. Dawson (Part B, 1885), 12, 51.

SECTION II

Tornado Pass to Elk Pass

TORNADO GROUP

This section of the Divide is essentially a single continuous ridge of peaks throughout. It comprises the High Rock range and the Elk mountains. The airline distance is about forty-five miles.

Tornado Mt. (10169) is the highest peak. The area is drained by Elk river (Kootenay drainage) on the W. and by Livingstone and Highwood rivers (South Saskatchewan drainage) on the E.

No glaciers are mapped on or near the Divide N. of the International Boundary until Mt. Cornwell (9832) is reached, a distance of approximately one hundred miles. The mountain is situated about midway between Tornado and Elk passes. Access to the southerly portion of the group may be had from the trail up Oldman river on the E. and from trails in the valleys of Line creek and Fording river on the W. Further N. there is a trail up Highwood river on the E. and a road up Elk river on the W.

Mt. Arethusa. (9050) (9)
(A) Four mi. N. E. of Elk pass; N. E. of Mt. Tyrwhitt; E. of Highwood pass (Storm creek-Pocaterra creek).

Mt. Armstrong. (9161) (7)
(A-P) Two mi. N. E. of Fording River pass; E. of Mt. McLaren. ABC, 111, 115.
1915 first ascent by the Boundary Commission.

Baril Peak. (9837) (7)
(A-P) Two mi. S. E. of Fording River pass; E. of Mt. Cornwell. ABC, 107.
1915 first ascent by the Boundary Commission.

Beehive Mt. (9492) (6)
(A-P) Eight mi. N. of Tornado pass, between Tornado Mt. and Mt. Lyall. ABC, 107.
1913 first ascent by the Topographical Survey.

Mt. Bishop. (9300) (8)
(A-P) Four mi. N. W. of Weary Creek gap (Elk river to Highwood river); N. W. of Mt. McPhail; S. E. of Mt. Loomis.

Mt. Burns. (9645) (GSC 1962)
(A) Five mi. E. of Mt. Rae; between Sheep creek and Elbow river.

Mt. Cornwell. (9832) (7)
(A-P) S. buttress of Fording River pass; W. of Baril Peak. On the northerly flanks of this mountain occur the first-mapped glaciers of the (A-P) watershed N. of the International Boundary. ABC, 107.
1915 first ascent by the Boundary Commission.

Mt. Courcelette. (9977) (7)
(P) Four mi. S. W. of Fording River pass; S. W. of Mt. Cornwell in N. E. angle between Henretta creek and Fording river. ABC, 84, 108, 110.
1915 first ascent by the Boundary Commission.

Mt. Etherington. (9300) (7)
(A-P) Five mi. S. of Fording River pass; S. of Baril Peak; N. of Mt. Scrimger.

Mt. Farquhar. (9400) (7)
(A-P) One mi. N. of Mt. Pierce; head of Cataract river.

Mt. Gass. (9450) (6)
(A-P) N. W. of Mt. Lyall, between Chauncey creek and Oldman river sources.

Mt. Head. (9122) (Palliser; Standard 20)
(A) Highwood range; N. angle of Highwood river and Mist creek. [This peak appeared on the Palliser (1860) and many subsequent maps as a peak of the Continental Divide, on which it was shown conspicuously. Its historic significance is discussed in C. A. J. xiii, 250.]

Mt. Loomis. (9100) (8)
(A-P) Two and one-half mi. N. W. of Mt. Bishop, between Elk and Highwood rivers.

Mt. Lyall. (9860) (6)
(A-P) Ten mi. N. of Tornado pass; S. E. of Mt. Gass; the highest peak between Tornado Mt. and Fording River pass.

Mt. McLaren. (9400) (7)
(A-P) Four mi. N. of Fording River pass; N. W. of Mt. Armstrong.

Mt. McPhail. (9500) (8)
(A-P) One mi. N. of Weary Creek gap; the S. peak of the Elk Mountains; S. E. of Mt. Bishop.

Mist Mt. (10303) (GSC 1962)
(A) W. of Mist creek (Highwood river), above its junction with Storm creek. ABC, 111; Dawson (Part B, 1885), 96

Mt. Muir. (9000)
(A) Lat. 50° 24′, Long. 114° 49′.

Mt. Peck. (9584) (Standard 20)
(P) Five mi. W. of Elk river; Lat. 50° 08′, Long. 115° 03′.

Mt. Pierce. (9350) (7)
(A-P) One mi. S. of Mt. Farquhar; the highest point is just W. of the Divide.

Mt. Rae. (10576) (GSC 1962)
(A) E. of Kananaskis river; two mi. N. E. of Highwood pass (Kananaskis river to Highwood river).

Mt. Scrimger. (9000) (7)
(A-P) Eight mi. S. of Fording River pass; two mi. S. of Mt. Etherington.

Mt. Storelk. (9405) (9)
(A-P) Five mi. S. E. of Elk pass; S. E. of Mt. Tyrwhitt. ABC, 115.
1915 first ascent by the Boundary Commission.

Tornado Mt. *(Gould Dome).* (10169) (5a; 6)
(A-P) E. buttress of Tornado pass; the highest peak of the High Rock range. The first peak over 10000′ N. of the International Boundary; 70 mi. distant from same. ABC, 102, 105; C. A. J. viii, 136.
1915 first ascent by the Boundary Commission.

Mt. Tyrwhitt. (9428) (9; 9a)
(A-P) S. buttress of Elk pass; N. W. of Mt. Storelk. ABC, 119.
1915 first ascent by the Boundary Commission.

SECTION III

Elk Pass to South Kananaskis Pass

JOFFRE GROUP

This fine cluster of peaks lies between Elk and South Kananaskis passes, about fifteen miles along the water-parting. The group occurs at a sharp angle in the Divide where it transfers from one element of the parallel series of ranges that constitute the typical formation of the Rockies to the next westerly element. The culminating point is Mt. Joffre (11274).

Glaciers are numerous and extensive on the higher slopes and here the snow and ice scenery so characteristic of the loftier portions of the Canadian Rockies may be said to commence, thence extending almost continuously to the Resthaven group, two hundred and sixty miles to the north.

On the northeasterly flanks of the group lie the attractive Kananaskis lakes, while across the Divide to the S. are the smaller Elk lakes whence the Elk river flows. The westerly flanks of the group are drained by White and Palliser rivers.

The best route of approach is from Banff by way of Spray and Kananaskis rivers to Elk pass. Six days should be allowed for the pack-train journey. There is also a good trail from Morley, C.P.R., to the Kananaskis lakes. On the W., a trail from Columbia lake leads up Kootenay and Palliser river valleys and branches up Joffre creek, draining the westerly flanks of the group.

Map reference: Sheet 1962, Geological Survey (1923).

Mt. Abruzzi. (10700) (9)
(P) Head of Abruzzi creek, between Elk and White rivers; S. E. of Mt. Cadorna. C. A. J. xviii.
No data as to first ascent.
1929, Miss K. Gardiner, *W. Feuz.* From camp at a lake (7000′) on N. W. side of the peak, the S. ridge was gained and followed to the summit on which a collapsed cairn was found. Descent by N. face and glacier.
Ascent 5 h. 30 m.; descent 3 h.

Mt. Aosta. (9790) (9)
(P) S. of Elk lakes; N. E. of Mt. McCuaig.

Banded Peak. (9629) (GSC 1962)
(A) Between sources of Elbow river.

Mt. Blane. (9650) (R. M. Park, 1923)
(A) One mi. S. of Mt. Brock; E. of terminal forks of King creek (Kananaskis river; Tp. 20).

Mt. Burney. (9625) (R. M. Park, 1923)
(A) One mi. S. E. of Mt. Blane; E. of Kananaskis river; near source of Elbow river (Tp. 20).

Mt. Cadorna. (10280) (9)
(P) N. of Mt. Abruzzi; S. Cadorna lake; E. of White river. C. A. J. xviii.
1929 first ascent by Miss K. Gardiner, *W. Feuz.*
From camp on White river, six mi. S. of Sylvan pass, the W. arête was attempted, but on account of its difficulty was abandoned for the S. W. face, which was then ascended diagonally to the S. arête, this ridge being followed (1 h.) to the summit.
Ascent 7 h. 45 m.; total time 14 h.

Mt. Castelnau. (9800) (9)
(P) S. E. of Mt. Petain; N. E. of Mt. Nivelle; S. W. of upper Elk lake; head of Castelnau glacier (White river).

Mt. Connor. (9410) (Standard 20)
(P) Two mi. S. E. of Mt. Abruzzi; E. of head of Forsyth creek (Elk river.)

Mt. Cordonnier. (9910) (10)
(A-P) E. of Joffre creek; S. of Mt. Warrior; N. of Mt. Mangin.

Mt. Defender. (9250) (10)
(P) Four mi. S. of S. Kananaskis pass; S. of Mt. McHarg.

Fisher Peak. (10015) (R. M. Park, 1923)
(A) Five mi. E. of Kananaskis river, in forks of Evans-Thomas creek (Tp. 21).

Mt. Foch. (10430) (9)
(A-P) Five mi. W. of Elk pass; N. E. of Mt. Petain; W. of Mt. Fox; S. of upper Kananaskis lake.

Mt. Fox. (9752) (Palliser; 9)
(A-P) Between Elk pass and Mt. Foch. C. A. J. xiii, 250; Dawson (Part B, 1885), 108.
1916 first ascent by the Boundary Commission.

Mt. Joffre. (11274) (GSC 1962)
(A-P) S. E. of Mt. Mangin; S. W. of Mt. Petain; headwaters of White river, fifty mi. S. of Banff. The highest peak between the International Boundary and Mt. Assiniboine. The large glacial system on the E. supplies the farthest sources of Elk river. ABC, 126, 128; C. A. J. xi, 19.
1919 first ascent by J. W. A. Hickson, *E. Feuz, Jr.*
From camp on Hidden lake, six mi. N. of Mt. Joffre and immediately N. E. of Mt. Lyautey proceed through timber, alders and scrub to a level about 500′ above camp; thence a gradually ascending route toward the peak; 3 h. to timberline and 45 m. longer to the edge of Mangin glacier. Rope at about 9500′, the route over the glacier gradually bearing to the left to the rocks. A steep wall is ascended to a snow saddle in the N. E. arête whence the summit is reached without difficulty.
Ascent from camp 7 h. 10 m.; descent from peak to glacier 2 h. 15 m.; total time from camp 12 h. 45 m.

Mt. Lyautey. (9990) (10)
(A) S. W. angle between Foch creek and upper Kananaskis river; N. E. of Mt. Northover; head of Lyautey glacier.

Mt. Mangin. (10030) (10)

(A-P) N. W. of Mt. Joffre; S. E. of Mt. Cordonnier; head of Mangin glacier. A. A. J. i, 1, 2; C. A. J. xvii, 30.

1928 first ascent by J. W. A. Hickson, *E. Feuz, Jr.*

From camp (7400) at head of Joffre creek, 250′ below Sylvan pass (Joffre creek to White river), immediately W. of Mt. Joffre. A huge couloir on the W. side of the peak presents no difficulty. Rope is used above 9500′ in order to pass an exposed chimney, 150′ below the top, above a narrow ledge below which the rock is undercut. Thence easy going to spacious summit.

Ascent 4 h. 25 m.; descent 3 h. 15 m.

Mt. Marconi. (10190) (Standard 20)

(P) Four mi. S. of Mt. Abruzzi; between Forsyth creek (Elk river) and White river.

Mt. Marlborough. (9700) (10)

(A-P) N. of Mt. Petain at head of Foch creek.

Mt. McCuaig. (9300) (9)

(P) E. of Mt. Nivelle; S. E. of Mt. Castelnau; W. of Nivelle creek.

Mt. McHarg. (9476) (10)

(A-P) Two mi. S. W. of S. Kananaskis pass; N. W. of Mt. Defender. ABC, 129, 131.

1916 first ascent by the Boundary Commission.

Mt. Nivelle. (10620) (9)

(P) S. W. of Mt. Castelnau; S. E. of Mt. Joffre, between upper Elk lake and White river. A. A. J. i, 1, 3; C. A. J. xvii, 32.

1928 first ascent by J. W. A. Hickson, *E. Feuz, Jr.*

From Sylvan pass down White river and up gulch of Nivelle creek to camp (5800′). To roping place on S. W. scree shoulder (9400′; 4 h. 30 m.). Thence over narrow ledges covered with gravel and up a steep couloir on the S. W. side of the mountain, circumventing several prominent ridge-towers. The top of the couloir brings one under a subsidiary point which is turned by a traverse on its left to a short, steep chimney leading to the narrow summit.

Ascent 6 h. 55 m.; descent 5 h.

Mt. Northover. (10000) (10)
(A) S. W. of Mt. Lyautey; N. of Mt. Warrior; W. of Aster creek.

Mt. Onslow. (9150) (10)
(P) S. of Mt. Defender; N. E. angle between Joffre creek and Palliser river.

Mt. Petain. (10400) (10)
(A-P) N. E. of Mt. Joffre; head of Petain glacier.

Mt. Sarrail. (10400) (9)
(A) Adjoins Mt. Foch on N.; S. of upper Kananaskis lake.

Mt. Warrior. (9600) (10)
(A-P) N. of Mt. Cordonnier; head of Aster creek.

SECTION IV

South Kananaskis Pass to Palliser Pass

SIR DOUGLAS GROUP

The Sir Douglas group occupies about eight miles of the Divide between South Kananaskis and Palliser passes. The principal peaks occur in a compact cluster some three miles E. of Palliser pass, culminating in Mt. Sir Douglas (11174).

The group is drained by Spray and Kananaskis rivers on the E. and Palliser river on the W. Palliser pass connects the sources of Spray and Palliser rivers. The group is reached by branch trails from Kananaskis lakes, the latter connecting with the C.P.R. by good trails to Banff and Morley.

Mt. Beatty. (9841) (10)

(A-P) Between N. and S. Kananaskis passes. ABC, 132, 136; C. A. J. xi, 17.

1916 first ascent by the Boundary Commission.

1919, J. W. A. Hickson, A. C. Stead, *E. Feuz, Jr.*

From camp at the head of LeRoy creek under W. side of the mountain; 3 h. to N. ridge which is then followed to summit; interesting climbing, rope advisable.

Mt. Birdwood. (10160) (11)

(A) S. E. of Mt. Smuts; four mi. N. E. of Spray pass; six mi. N. of Palliser pass; head of Birdwood creek. C. A. J. xii, 41; xiii, 110.

1922 first ascent by C. F. Hoogeboom, F. N. Waterman, *R. Aemmer.*

From camp E. of N. end of Lake Leman, via S. W. face to 8500′ at foot of talus slope (2 h.). Up 900′ of talus, with

ledge to first chimney, a gully of 300′ (rotten rock), and up and to left into 100′ chimney with smooth slabs near top. A short bit of climbing on buttress of face (rotten rock) to gully leading up diagonally into steep 20′ chimney (smooth) and 400′ gully to arête which is followed by a short ridge to the summit.

Ascent from camp 7 h. 30 m.

Mt. Burstall. (9050) (11)

(A) Four mi. N. E. of Palliser pass, between Burstall and French creeks.

Mt. French. (10610) (11)

(A) Between Mt. Robertson and Mt. Smith-Dorrien at head of upper Kananaskis river; three mi. N. E. of Palliser pass. App. xv, 324; C. A. J. xii, 38.

1921 first ascent by H. S. Hall, Jr., M. Morton, Jr., *I. Feuz, Jr.*

From camp on Maude brook at spring four mi. above Turbine canyon. Through woods to Haig glacier which is crossed to névé and the French-Jellicoe saddle reached at lowest point (2 h.). Follow S. E. arête over easy but rotten rock to low S. peak (1 h. 45 m.). The ridge narrows for 120′, following which a short scramble leads to central and highest point (1 h.). A peak of nearly the same height, a short distance to the N. E., is easily reached.

Ascent from camp 4 h. 45 m.

Mt. Jellicoe. (10065) (11)

(A) S. E. of Mt. Sir Douglas; head of upper Kananaskis river. ABC, 135; C. A. J. xiii, 117.

1916 first ascent by the Boundary Commission.

1922 E. W. Crawford, M. D. Geddes, W. Gillespie, Miss M. P. Hendrie, Miss N. D. B. Hendrie.

From Kananaskis camp cross Haig glacier to S. W. face. Long snow slope leads to steep shale and rock outcrop (fossils), from which the arête is reached. Broken rock and two short chimneys lead to E. cairn; narrow ridge to W. and higher cairn.

Ascent 4 h. 40 m.

Mt. Leroy. (9650) (10)

(P) Two mi. S. E. of Palliser pass at head of Palliser river.

Mt. Maude. (9980) (10)

(A-P) S. of Mt. Robertson; N. buttress of N. Kananaskis pass. C. A. J. xiii, 117.

1922 first ascent by G. R. Adams, E. W. Crawford, M. D. Geddes, W. Gillespie, Miss M. P. Hendrie, Miss N. D. B. Hendrie, Miss J. B. Wilcox, *R. Aemmer.*

From N. Kananaskis pass up shale and rocky watercourse (steep and smooth); thence eastward gaining altitude to E. arête half way between summit and col separating peak from eastern ridge. Broken, poorly-defined E. arête to summit.

Ascent 7 h.; descent by arête and snow on Haig glacier side to E. col, thence down shale to Maude lake; 5 h.

Mt. Monro. (10145) (11)

(P) S. of Mt. Sir Douglas; three mi. E. of Palliser pass. A. J. xxxiii, 205.

Mt. Murray. (9920) (11)

(A) N. of Mt. Smith-Dorrien, in S. angle between French creek and upper Kananaskis river.

Mt. Putnik. (9550) (10)

(A) Two mi. E. of S. Kananaskis pass, in N. W. angle between Three Isle creek and upper Kananaskis river.

Mt. Robertson. (10400) (11)

(A-P) N. of Mt. Maude; E. of Mt. Sir Douglas. A. A. J. i, 1, 5; C. A. J. xii, 50; xiii, 70; C. A. J. xvii, 35.

1922, incomplete ascent by M. D. Geddes, W. F. Gillespie, J. H. Hall, Jr., D. J. M. McGeary, A. S. Sibbald. Attempt via Haig glacier and arête from Sir Douglas Robertson col. The last 150′ of summit arête is a knife-edge of rock and was not crossed.

1928 first ascent by J. W. A. Hickson, *E. Feuz, Jr.*

From camp (7250′) near Turbine canyon (Burstall creek) to Haig glacier, which is ascended to snow field below objective peak (3 h. 30 m.). Thence to Sir Douglas Robertson col over loose shale (30 m.). The S. W. arête soon becomes extremely narrow and is followed nearly to the A. C. C.

cairn and a descent made over steep slabs (100′) to a ledge by which the summit cliffs are traversed for 300′, whence the pointed summit is attained after the passage of 20′ of precipitous rotten rock.

Ascent 6 h. 15 m.; descent to col, 2 h. 10 m.; to camp 2 h. 45 m.

Mt. Sir Douglas. (11174) (11)

(A-P) Three mi. E. of Palliser pass, between Mt. Williams and Mt. Robertson. The highest peak between Palliser and N. Kananaskis passes. ABC, 134, 135; A. J. xxxiii, 204; C. A. J. xi, 9.

1919 first ascent by J. W. A. Hickson, *E. Feuz, Jr.*

Route 1. From camp one mi. N. of Palliser pass, cross the valley to the E., and reach the N. W. side of the mountain, where two parallel glaciers descend to 7500′ and 7000′. Ascend the W. glacier; easy going for a half hour, after which the snow becomes hard and steep. Bear to right through crevasses (2 h.) to a point near the top of the glacier where a traverse is made on steep ice (nearly 60°) to the W. arête (5 h. from camp). The arête is shaly and rotten; some steep pinnacles must be circumvented. Follow the ridge for half an hour, then traverse a short distance to the right and ascend a big couloir up the W. face. From the top of the couloir traverse to left and ascend a short couloir to loose rocks below the first summit (7 h. 15 m. from camp). The E. and highest summit (100′ higher) is quickly reached over a sharp rock ridge.

Descent to foot of glacier 2 h. 45 m.; total from camp 12 h.

(1919, attempt by V. A. Fynn, *R. Aemmer.* The S. W. ridge could not be followed through its entirety because of an impassable gendarme in its upper portion. A traverse was made to steep and difficult rock on the S. face and a point about 700′ below the summit gained).

Route 2. 1922, H. Pollard, T. O. A. West, and party, *R. Aemmer.*

From Belgium lake (Palliser pass) across ridge of Mt. Williams (1 h.) and S. W. glacier of Mt. Sir Douglas to steep snow at foot of W. arête (2 h.); rope and proceed up friable rock to W. arête (2 h.), which is followed to large gen-

darme (30 m.). This is traversed on S. side to W. face of peak, a large ice-couloir leading (1 h. 30 m.) to easier rocks and the E. summit.

Ascent from camp 8 h. 30 m. C. A. J. xiii, 124.

Mt. Smith-Dorrien. (10300) (11)

(A) N. E. of Mt. French, at head of upper Kananaskis river.

Mt. Smuts. (9600) (11)

(A) N. W. of Mt. Birdwood, between Spray and Kananaskis rivers. A. J. xxxiii, 195.

1926 first ascent by H. Crosby, Miss M. Crosby, C. Willard, *R. Aemmer.*

Mt. Williams. (9000) (11)

(A-P) W. of Mt. Sir Douglas; E. buttress of Palliser pass.

SECTION V

Palliser Pass to White Man Pass

KING ALBERT AND ROYAL GROUPS

A. The King Albert group includes the peaks on or near the Divide between Palliser and White Man passes, a distance of about six miles. Midway between the two, the Divide is crossed by Spray pass. The King Albert massif serves as a connecting link between the Royal group and the Divide.

According to Sir George Simpson, White Man pass was crossed in 1841 by a party of emigrants, from the West, under the leadership of John McDonald (Bras Croche).

In 1845 Father P. J. DeSmet ascended the Columbia and crossed the main range by this route, erecting his "Cross of Peace" on the watershed.

The route of approach is from Kananaskis lakes by way of Spray river trail.

Map reference: Sheet 1962, Geological Survey (1923).

Mt. Back. (9883) (10)

(P) S. W. of Mt. King Albert; two mi. S. W. of Palliser pass between Mt. King Albert and Palliser rivers. ABC, 138, 139; C. A. J. xiii, 250.

1910 first ascent by the Boundary Commission.

Mt. Cradock (9900) (R. M. Park, 1923)

(P) One and one-half mi. S. E. of Mt. Back.

Mt. King Albert. (9800) (11)

(A-P) W. of Mt. Queen Elizabeth; two mi. W. of Palliser pass. ABC, 138; C. A. J. xiii, 93.

1922 first ascent by G. A. Gambs, K. G. McClelland, T. B. Moffat, H. E. Sampson, D. R. Sharpe, *Ern. Feuz.*

Via N. col and arête, from Palliser pass camp to break in arête, 500′ below summit (2 h. 45 m.). Traverse short distance W., over 40′ of difficult rock, after which the summit is easily reached.

Ascent from Camp 4 h. 30 m.

Mt. Queen Elizabeth. (9349) (11)

(A-P) E. of Mt. King Albert; W. buttress of Palliser pass. ABC, 138, 139.

1916 first ascent by the Boundary Commission.

Unnamed *(Tipperary)* (9800) (10)

(P) One mi. S. of Mt. Back; N. W. of Mt. Cradock. C. A. J. xiii, 207.

1922 first ascent by members of A. C. C. (names of party unknown).

Mt. Vavasour. (9350) (11)

(A) W. of Spray river; two mi. N. of Spray pass; three mi. S. E. of White Man pass. C. A. J. xiii, 258.

Mt. Warre. (9050) (11)

(A) Two mi. E. of White Man pass, in S. angle between White Man creek and Spray river. C. A. J. xiii, 258.

Mt. White Man. (9768) (11)

(A-P) S. of White Man pass at head of Cross river.

B. The Royal group is a notable group of eight distinct peaks situated almost due south of Palliser pass on the W. side of Palliser river, which separates it from the northerly ridges of the Joffre group, lying to the E. of that river. Its towers, precipitous walls, and glaciers, make it a landmark from all sides. It is distant about eight miles W. from the Divide to which it is joined by the southerly ridges of the King Albert group. All of the peaks are, therefore, on the British Columbia (P) slope. The Royal group is best reached from Palliser pass, but is not visible from this pass, being hidden by peaks on Tipperary creek adjoining Mt. Back on the S. E.

From Palliser pass a good trail leads down the W. slope to Palliser lake, below which the trail is poor, with much fallen timber, until the mouth of Tipperary creek is passed. Camp on S. side of Royal creek.

Mt. King George. (11226) (10)

(P) W. of Palliser river, seven mi. S. W. of Palliser pass; 45 mi. S. of Banff. ABC, 131; C. A. J. xi, 28.

1919 first ascent by V. A. Fynn, *R. Aemmer.*

Ascend ridge guarding S. side of Royal valley; much fallen timber; 2 h. 30 m. to timberline. Bivouac in first gorge W. of Royal valley. Cross grass, scree, and snow patches to foot of steep rock wall, above which is a small sheltered valley with a few trees. A snow couloir, some steep rocks, and a traverse eastward, lead to this basin whence flats E. of Mt. Prince George are reached without difficulty (2 h. 20 m.). Traverse loose shale to small glacier and skirt same along its N. edge until the S. ridge of Mt. Prince George is reached. Cross to King George glacier and ascend into cirque between Mts. King George and Prince Albert (4 h. 30 m.). Cross large bergschrund (often difficult) with steep ice above, leading to a firm but steep rock rib, just N. of the hanging glacier on the E. face of Mt. King George. The upper portion of the rock rib is brittle and an ice ridge (step-cutting) leads to the main N. arête (2 h. 15 m.). Thence the summit is reached (2 h.) over fairly difficult rock and snow.

Ascend from bivouac 11 h.; descent 7 h.

Mt. Prince Albert. (10530) (10)

(P) N. E. of Mt. King George, between Mts. Prince Edward and Prince George. Both of its peaks are accessible from the head of King George glacier. C. A. J. xi, 45.

Mt. Prince Edward. (10590) (10)

(P) Between Mts. Prince Henry and Prince Albert; probably the best climb after Mt. King George. Accessible from Royal valley, up E. face to gap between it and Mt. Prince Henry, whence either peak can be gained by traversing to their W. arêtes. C. A. J. xi, 45; xviii.

1929 first ascent by Miss K. Gardiner, *H. Fenz.*

From a camp on S. W. side of the mountain, up the W. side (4 h.) to a depression on the S. W. arête, which was followed (the crest being left at intervals to avoid unscalable bluffs) to the top, the last portion (30 m.) being snowy.

Ascent 5 h. 45 m.; total time 12 h. 25 m.

Mt. Prince George. (9450) (10)

(P) E. of Mt. King George; S. E. of Mt. Prince Albert. A shale slope on the S., accessible from King George glacier. C. A. J. xi, 45.

Mt. Prince Henry. (10560) (10)

(P) Between Mts. Prince John and Prince Edward (which see). C. A. J. xi, 45; xviii.

1929 first ascent by Miss K. Gardiner, *H. Feuz.*

From camp on Royal creek, via rock rib between objective peak and Mt. Prince Edward to the S. ridge (5 h.) and thence to summit (3 h.), the arête being very sharp in places.

Ascent 8 h., descent 5 h. 45 m.

Mt. Prince John. (10570) (10)

(P) The S. E. and secondary summit of Mt. Queen Mary; accessible from summit of the latter. C. A. J. xi, 45.

Mt. Princess Mary. (10090) (10)

(P) The S. peak of the Royal group; S. E. of Mt. King George. Accessible from King George glacier, via N. ridge. C. A. J. xi, 45.

Mt. Queen Mary. (10600) (10)

(P) The N. peak of the Royal group (see also Mt. Prince John). C. A. J. xi, 45; xiii, 98.

1922 first ascent by C. F. Hoogeboom, F. N. Waterman, *R. Aemmer.*

From Palliser pass cross high pass S. E. of Mt. Back to long glacier between Mts. Back and Tipperary, ascending this glacier to ridge terminating Royal valley on N. Cross valley and ridge on opposite side to bivouac in valley N. of objective peak. Ascend northerly extension of N. W. arête (1 h. 20 m.), following it was a short distance in southerly direction and traversing up W. face to second buttress; thence to gully just N. of third buttress. The southerly of

two chimneys leads to window in the arête just S. of a low rectangular block of rock. A higher cliff to S. at right angles to the ridge guards the approach to the main peak. A narrow ledge leads along the N. face of the cliff, a jutting slab of white rock (3′ above the ledge) affording good handholds. The arête beyond this is gained and followed to the summit.

Ascent from bivouac 9 h.

SECTION VI

White Man Pass to Simpson Pass

ASSINIBOINE GROUP

The Assiniboine group is a famous one, owing to its accessibility and splendid scenery. It is situated eighteen miles S. W. of Banff. Mt. Assiniboine (11870), seventh elevation of the Canadian Rocky mountains, rises in a striking pyramid high above its neighbors and is visible from vast distances on every side. The passes of the Divide are White Man, Wonder, Assiniboine, Citadel, and Simpson.

In 1841, Sir George Simpson crossed the pass which bears his name, travelling westward on the first overland journey around the world.

The group is reached from Banff by either of two routes, each requiring about three days of travel with a pack-train, although, for a number of years, permanent camps have been arranged at suitable intervals making the region available to pedestrians during the summer months. The W. route follows Bow valley and Healy creek toward Simpson pass. Four miles below the latter a trail branches S. and, after four miles more, joins the Simpson pass trail, leading S. E. across Citadel pass to Mt. Assiniboine. The E. route follows Spray river to Spray lakes; thence via Spray river and Bryant creek, crossing the watershed at Assiniboine pass and joining the Simpson river trail.

An approach, now used by hunting parties, may be made from the Banff-Windermere road. From the mouth of Cross river (shallow and easily fordable) the group may be reached in three days, branches of Mitchell river leading to Assiniboine pass.

Mt. Alcantara. (9910) (12)

(P) N. of Mt. Brussilof; three mi. S. W. of Marvel pass. C. A. J. xviii.

1929 first ascent by Miss K. Gardiner, *W. Feuz.*

From camp on Aurora creek, one mi. below Marvel pass, to the Alcantara-Brussilof col (3 h. 30 m.), whence the S. arête of the objective peak is followed over good rock to the summit.

Ascent 5 h.; descent 3 h. 30 m.

Mt. Allenby. (9500) (12)

(A) Four mi. E. of Assiniboine pass, in N. E. angle between Allenby and Mercer creeks.

Mt. Assiniboine. (11870) (12)

(A-P) Headwaters of Spray, Cross, and Simpson rivers: highest peak between International Boundary and C. P. R. ABC, 48; A. J. xviii, 397; xx, 545; App. ix, 196; x, 43; xii, 233; xviii, 397; xix, 234; xxi, 102; C. A. J. i, 1, 90; ii, 1, 10; O, 38; Outing, May, 1902, 207; Oct. 1904, 35.

1901 first ascent by J. Outram, *C. Bohren, C. Häsler.*

Route 1. S. W. face. From camp on Lake Magog cross flats to the first snow (20 m.), then up hard steep slopes and a craggy wall to loose débris and ice of the N. glacier. Cross to Assiniboine-Wedgwood col (9200′; Outram's "1st pass;" 40 m.); descend slightly on far side to glacier and cross to Assiniboine-Sturdee col (Outram's "2nd pass;" 9600′) at base of W. arête. At this level traverse narrow but not difficult ledges across the S. W. face to the S. W. Ridge (9500′). From this point (4 h. 30 m.) ascend ledges loose rock to the foot of a 70′ cliff at about 10750′. A short distance to N. a broad snow couloir, trending upward toward the Assiniboine-Lunette depression, is crossed to a point where the cliff recedes and merges into the S. W. face. The face is ascended diagonally over steep ledges and escarpments, interspersed with snow and ice (step-cutting). The S. arête is reached at a point 300′ below the summit which is then gained by means of an easy ridge of snow.

Ascent from Lake Magog, 10 h.; from 9500′ on S. W. arête, 5 h. 30 m.

Route 2. N. arête. 1903, W. Douglas, *C. Häsler, C. Kaufmann.*

A variation of this route was used in the descent by Outram, who states that the arête was followed for a short distance below the summit, after which the N. face was used. The N. glacier is reached from Lake Magog and is crossed, the general line of ascent being the narrow arête. From Lake Magog to foot of Wedgwood peak, 20 m.; up rocks of somewhat steep wall, traversing gradually to left (S. E.) to reach glacier at N. foot of the mountain (2 h. 50 m.). Lowest rocks of N. arête in 45 m.; ascend via N. W. face, gradually working onto arête and following it to summit. Two almost perpendicular cliffs cross and divide the arête into distinct sections, the rock walls affording good climbing. The ridge above the second cliff also offers climbing, but the remainder is generally easier. Ice may require considerable step-cutting. To lower rocky N. summit, 5 h. 30 m.; main summit 40 m. more. A. J. xxxiii, 207; O., 71. Descent to wall of Wedgwood Peak, 5 h.

The ascents from A. C. C. camp were for the most part made by this route which is shorter than Route 1. Several ascents were made in 1920 via the N. arête in slightly more than 3 h. 30 m. from the N. glacier, or in less than 6 h. from Lake Magog.

Route 3. N. W. face. 1910, T. G. Longstaff, *R. Aemmer.*

To Assiniboine-Sturdee col at base of S. W. arête, see Route 1. Traverse up the steep snow of the N. W. face (step-cutting) and via the middle of the face to avoid ice-couloirs. Constant step-cutting except for two vertical 15′ bands of rock. The final cliff is almost devoid of handholds for the first 12′ and the rocks are usually icy. 60′ above, steep snow leads to summit. C. A. J. iii, 174.

Ascent from Lake Magog, 9 h.; descent by Route 2, 11 h.

[The mountain was named in 1885 by G. M. Dawson, of the Dominion Geological Survey, who saw it from afar. Its base was reached in 1893 by R. L. Barrett and T. E. Wilson. Attempts to ascend the mountain were made in 1899 by H. G. Bryant and L. J. Steele, by the N. W. arête; in 1900 by

the brothers Walling, with three Swiss guides; and in 1901 by H. G. Bryant, W. D. Wilcox, *E. Feuz,* who attained 10850′ on the S. W. side.]

Mt. Aye. (10640) (12)
(A-P) S. of Lunette Peak; N. W. of Mt. Eon. ABC, 52, 146.

Mt. Bogart. (10315) (R. M. Park, 1923)
(A) S. of Mt. Lougheed (Wind); W. of Kananaskis river; four mi. E. of Spray lake.

Mt. Brussilof. (9990) (12)
(P) S. of Mt. Alcantara; four mi. W. of White Man pass. C. A. J. xviii.
1929 first ascent by Miss K. Gardiner, *W. Feuz.*
From camp on Aurora creek to the Alcantara-Brussilof col, whence the N. arête of the objective peak affords good rock-climbing (2 h.) to the summit.
Ascent 5 h.; descent 4 h.

Mt. Byng. (9760) (12)
(A) N. W. of Mt. Currie; two mi. E. of Marvel pass.

Mt. Cautley. (9418) (12)
(A-P) N. of Wonder Peak; S. E. buttress of Assiniboine pass. ABC, 148.

Centurion Peak. (9900) (12)
(P) S. W. of Mt. Sturdee; S. of The Marshal; between Mitchell river and Assiniboine creek. ABC, 151.
1920 first ascent by members of A. C. C. (names of party unknown).

Mt. Currie. (9268) (12)
(A) Two mi. N. of White Man pass; between White Man and Currie creeks. ABC, 146.
1916 first ascent by the Boundary Commission.

Mt. Eon. (10860) (12)
(A-P) S. E. of Mt. Aye; S. W. of Mt. Gloria; three mi. W. of Marvel pass. ABC, 52, 146.
1920, attempt via N. E. arête by H. J. Graves, L. H. Lindsay, A. W. Wakefield. From a camp near the head of a small

lake below a snow-filled couloir dividing the E. face from Mt. Gloria. The col (6850′) is reached (3 h.) and a traverse made around the valley head to the Gloria-Eon col (8700′; 2 h.). The S. side of the N. E. arête may be easily followed to 9730′, but beyond this point cliffs prevented further progress. C. A. J. xii, 14, 86.

1921 first ascent by W. E. Stone.

From Assiniboine camp cross Wonder and Marvel passes to bivouac below E. face of Mt. Gloria. Cross the col on Mt. Gloria, but instead of progressing to the Gloria-Eon col, work S. gaining the first broad ledge of Mt. Eon at 7800′, passing around S. E. arête to base of wide S. face of the mountain, where at the E. end there is a yellow-capped outlying tower at the same level. Ascend three slopes and broken ledges of easy gradient for about 800′, follow by steep ledges and couloirs for 500′. Then ledges with broken faces to S. E. arête at 9500′. Follow arête closely on S. side to snow band at 10300′; steep snow to broken ledges and short couloirs of unstable rock to a final wide, steep, irregular chimney, opening to the summit.

(Dr. Stone was accompanied only by his wife. He reached the top of the final chimney and unroped on the summit. Upon returning to the top of the chimney he stepped on a loose stone, near the edge, which carried him over the cliff to his death. Mrs. Stone who had remained at the base of the chimney, was able to descend on the S. face to 7500′, where she was rescued on July 23 by the guide *Rudolph Aemmer*, with W. Childs, W. Peyto, and C. Pounden. The accident occurred on July 17. On August 5, a party consisting of L. H. Lindsay, A. H. MacCarthy, *R. Aemmer, E. Feuz, Jr., C. Kaufmann*, ascended the mountain by the S. E. arête, recovering Dr. Stone's body some 850′ below the summit.)

Fatigue Mt. (9667) (13)

(A-P) Head of Fatigue creek, between Citadel and Fatigue passes. RDI, 1890, ii, 45; ABC, 50, 56.

1889 first ascent by W. S. Drewry.

Mt. Galatea. (10600) (GSC 1962)

(A) Five mi. S. E. of Spray lake, culminating Kananaskis range.

Gibraltar Rock. (9418) (12)

(A) Culminates N. E. arête of Mt. Cautley; S. E. of Assiniboine pass. ABC, 56, 148.

1913 first ascent by the Boundary Commission.

Mt. Gloria. (9500) (12)

(A-P) N. E. of Mt. Eon; W. buttress of Marvel pass.

1929 first ascent by Miss C. Baldwin, Miss E. Bigelow, F. X. Bigelow, H. Bigelow, H. Bigelow, Jr., Mrs. H. B. Bigelow, C. Coeyteaux, Miss S. Detty, Miss G. Duffy, R. Hallowell, H. Howe, Miss C. Saltonstall, R. Saltonstall, R. Walcott.

From camp at S. W. end of Marvel lake, via Marvel pass, whence talus and broken rock are traversed to easy couloirs and ledges leading to snow-saddle between objective and subsidiary peak to S. Thence 800′ of steep but easy rock to summit. Rope not used.

Ascent 4 h.

Goats Tower. (9200) (12)

(P) N. of Wedgwood Peak, terminating the long N. spur of Mt. Assiniboine; W. of Lake Magog. C. A. J. iii, 175.

1910 first ascent by T. G. Longstaff, Miss Longstaff, *R. Aemmer.*

Via the steep rocks of the N. W. face.

Mt. Harkin. (9788) (Sect. 114)

(P) Lat. 50° 48′, Long. 115° 52′. At head of W. fork of Mitchell river.

Indian Peak. (9840) (13)

(P) S. W. of Nestor Peak; W. of Ferro pass (Simpson river to Mitchell river).

1916 first ascent by the Boundary Commission.

Mt. Inflexible. (9800) (GSC 1962)

(A) Kananaskis range; five mi. N. E. of Mt. Robertson.

Mt. Lougheed *(Wind).* (10190) (R. M. Park, 1923)

(A) S. E. of Canmore station; W. of Kananaskis river, three mi. E. of Lower Spray lake. O., 31; RDI, 1890, ii, 45; W., 238.

1889 first ascent by W. S. Drewry, A. St. Cyr.

From White Man pass at S. W. foot of peak; 500′ of short cliffs below summit.

Lunette Peak *(Lens Peak).* (11150) (12)

(A-P) Highest point on S. arête of Mt. Assiniboine; N. of Mt. Aye. O., 62.

1901 first ascent by J. Outram, *C. Bohren, C. Hasler.*

From Lake Magog via Wedgwood-Assiniboine and Sturdee-Assiniboine cols to the Assiniboine S. W. arête as in Route 1 for Mt. Assiniboine. From this point ascend loose rocks to the first wall, at 10750′, the base of which is traversed for a short distance to the S. where a narrow 15′ chimney with firm holds permits an ascent. A narrow ridge running up from the W. to the summit of Lunette can now be reached over steep ledges and followed to the top. (This summit was ascended by Outram's party in thick mist in mistake for Mt. Assiniboine.)

Mt. Magog. (10050) (12)

(A-P) N. E. of Mt. Assiniboine; W. of Mt. Terrapin. C. A. J. xii, 53, 64.

1920 first ascent by A. J. Gilmour, A. H. MacCarthy, A. W. Wakefield, F. N. Waterman.

From Assiniboine camp over scree and rock slides direct to Naiset Point and thence over Naiset to Naiset-Terrapin col; thence up steep ice couloir (step-cutting) on N. face of Terrapin, over ice and rock to cliff and slabs above, whence scree slopes on N. face are ascended to summit of Mt. Terrapin (which see). Descend scree to Terrapin-Magog col; then up narrowing ledges for about 100′ to bottom of steep 80′ crack in yellow rock ("Golden Stairs"), which is ascended to broken slabs and the summit ice-cap reached easily by the shoulder S. E. of the peak.

Ascent and return 13 h. 30 m.

[A short time before, this route had been followed in part by L. H. Lindsay, A. H. MacCarthy, E. O. Wheeler, who ascended via Wonder pass direct to the Naiset-Terrapin col. They omitted going to the highest point of Mt. Magog, but from the top of the last difficult crack skirted the summit

on the N. W. and descended steep rock of W. arête to Magog-Assiniboine col, whence Lake Magog was regained via Assiniboine N. glacier.]

The Marshal. (10465) (12)
(P) N. W. of Mt. Sturdee; E. of Mitchell river. C. A. J. xi, 47.
1919 first ascent by V. A. Fynn, *R. Aemmer.*
From Sunburst valley and Cerulean lake, via head of Wedgwood creek.

Mt. Mercer. (9700) (12)
(A) Four mi. E. of Assiniboine pass at head of Mercer creek.

Mt. Morrison. (9100) (11)
(A) W of Spray river between Mt. Turner and Currie creek.

Naiset Peak. (9050) (12)
(P) On N. arête of Mt. Terrapin; S. E. of Lake Magog. ABC, 147.
1920 first ascent by N. Allen, H. E. Bulyea, Miss M. Gold, D. J. M. McGeary, Miss J. Stewart, E. L. Taylor, C. G. Wates.
(See Mt. Magog.)

Nasswald Peak. (9985) (13)
(A-P) S. E. buttress of Fatigue pass. ABC, 50.

Nestor Peak. (9700) (12)
(P) N. E. of Ferro pass (Simpson river to Mitchell river).
1920 first ascent by H. E. Bulyea, Miss M. Gold, C. G. Wates.
From camp in Golden valley.

Nub Peak. (9016) (12)
(P) Two mi. W. of Assiniboine pass at head of Sunburst valley (Mitchell river). ABC, 56, 150.
1913 first ascent by the Boundary Commission.

Octopus Mtn. (9600) (Standard 20)
(P) Lat. 50° 55′, Long. 115° 49′.

Mt. Red Man. (9493) (12)

(A-P) N. W. buttress of White Man pass. ABC, 143, 144.

1916 first ascent by the Boundary Commission.

Mt. Sparrowhawk. (10200) (GSC 1962)

(A) Three mi. S. of Mt. Lougheed; N. W. of Ribbon creek.

Mt. Sturdee. (10300) (12)

(P) W. of Mt. Assiniboine at head of Assiniboine creek. C. A. J. xii, 56, 176.

1920 first ascent by W. W. Foster, E. L. T. Taylor, P. S. Thompson, Mrs. P. S. Thompson.

From Lake Magog to Assiniboine-Sturdee col, see Route 1 for Mt. Assiniboine (5 h.). Thence up E. arête until below a steep bluff, the top of which is reached by ascending on the S. side. Then up snow and rock of N. face above the bluff to a little lake in a depression between two pinnacles of the ridge (1 h. from col); thence 100′ of snow on N. face and a short steep pitch to the ridge at foot of peak, scree and a second short pitch leading to summit.

In 1920 the mountain was traversed by a party led by A. H. MacCarthy, ascending by the N. arête and descending by the route described above.

In 1920 the W. arête was ascended by a party of the A. C. C., the route being on good rock with short difficult stretches.

Mt. Terrapin. (9600) (12)

(A-P) N. E. of Mt. Magog; S. W. of Mt. Towers. C. A. J. xii, 53.

1915 first ascent by H. O. Frind, L. Jeffers, *C. Kain.*

From Wonder pass traverse W. on a level with the pass to a col on the Assiniboine side, from which an easy ridge leads to the summit. Descent may be made via the glacier to Lake Magog. No summit cairn was made because of snow.

The mountain was traversed in 1920 by L. H. Lindsay, A. H. MacCarthy, E. O. Wheeler, en route to Mt. Magog (which see).

The Tower. (10200) (GSC 1962)
(A) S. W. of Mt. Kidd; Kananaskis range E. of Smuts creek; N. E. of Burstail creek.

Mt. Towers. (9337) (12)
(A-P) N. E. of Mt. Terrapin; W. buttress of Wonder pass. ABC, 146.
1916 first ascent by the Boundary Commission.

Mt. Turner. (9230) (11)
(A) N. of Mt. Morrison, in W. angle between Bryant creek and Spray river.

Unnamed *(Edmonton).* (9400) (13)
(P) E. angle between Simpson river and Surprise creek. C. A. J. xii, 73.
1920 first ascent by H. C. Bulyea, Miss M. Gold, C. G. Wates.
From camp in Golden valley, descend Simpson river (1 h.) and thence upstream to cirque S. of N. E. buttress. Snow slopes and rock to N. E. buttress, above a tower slightly below the main arête of the mountain. Loose rock to level summit ridge (8 h.) with highest point at S. E. end (2 h. 30 m.). Descent to Edmonton-Nestor col and down to Simpson river (3 h. 30 m.).

Mt. Watson. (9550) (12)
(P) S. angle between Wedgwood creek and Mitchell river.

Wedgwood Peak *(Katherine).* (9300) (12)
(P) N. W. of Mt. Assiniboine; S. W. of Lake Magog. ABC, 150; C. A. J. iii, 175.
1910 first ascent by T. G. Longstaff, Miss Longstaff, *R. Aemmer.*
The Wedgwood-Assiniboine col is reached as in Route 1 for Mt. Assiniboine, the arête thence being followed over several minor summits to the highest point (the peak was traversed from W. to E.).

Wonder Peak. (9300) (12)
(A-P) E. buttress of Wonder pass; S. of Mt. Cautley. ABC, 51, 56.
1913 first ascent by the Boundary Commission.

SECTION VII

Simpson Pass to Vermilion Pass

BALL GROUP

The airline distance between Simpson and Vermilion passes is fourteen miles, two minor passes, Ball (7300′) and Redearth (6800′) occurring in the interval. Mt. Ball (10865) is the dominating peak. The whole E. face of the massif presents a precipitous rock escarpment, hung with glaciers, which at Mt. Ball is nearly 4000′ high. On the S. W. the group is bounded by Vermilion river and on the N. E. by Bow river.

The group is reached from Vermilion pass on the Banff-Windermere motor road, seven miles S. of Castle station, C.P.R. Another route suitable for mountaineers leads from Moraine lake over Consolation pass to the Vermilion pass road. The Banff-Windermere road (opened 1923) branches near Castle station from the Bow river road connecting Banff with Lake Louise, Moraine lake, Field, Emerald lake and Yoho valley. The Banff-Windermere road is approximately 125 miles in length, crossing Vermilion pass (permanent camp) and descending the Kootenay river, which it leaves in order to reach the Columbia valley through Sinclair pass (between the Brisco and Stanford ranges).

Mt. Ball. (10865) (14)

(A-P) Two mi. N. of Ball pass and Isabelle Peak; S. of Storm Mt.; W. of Shadow lake. ABC, 39; C. A. J. i, 1, 85; v, 122.

1904 first ascent by J. D. Patterson, *C. Kaufmann.*

From camp two mi. W. of Vermilion pass. Ascend a draw towards S. E. past timberline, gaining a buttress N. W. of the peak; thence up steep shale slopes to a snowfield which is crossed to the W. arête. Follow arête to a small snow col which is crossed to the mass of the mountain. Keep to rocks marking the W. edge of the snowfield and ascend to a saddle 150′ below the summit; then up snow-slopes to heavily-corniced peak.

Ascent from camp 9 h. 30 m.; descent 5 h. including halts.

Haiduk Peak. (9580) (14)

(A-P) Culminating point between Ball and Redearth passes. ABC, 41.

Isabelle Peak. (9600) (14)

(A-P) S. of Mt. Ball; W. buttress of Ball pass. ABC, 40, 43.

1913 first ascent by the Boundary Commission.

Monarch Mt. (9488) (13a)

(P) Two mi. S. W. of Simpson pass, in angle between Verdant creek and N. branch of Simpson river. ABC, 43, 45, 56; C. A. J. viii, 147.

1913 first ascent by the Boundary Commission.

Ascended in 1916 from Healy creek camp by parties of A. C. C. A good rock climb on the E. side.

Mt. Shanks *(Folding).* (9330) (Standard 20)

(P) N. E. of junction of Simpson and Vermilion rivers.

Stanley Peak *(Mitchell).* (10351) (14)

(P) Four mi. S. of Vermilion pass, just W. of the portion of the Divide connecting Mt. Ball with Storm Mt. ABC, 38; C. A. J. v, 134, 136; Rod and Gun in Canada, 1912, 731.

1901 first ascent by E. Whymper and guides.

Storm Mt. (10372) (14)

(A-P) N. of Mt. Ball; S. E. buttress of Vermilion pass. ABC, 40; C. A. J. i, 1, 88; RDI, 1890, ii, 45; TSB, 1906-7, 78, 81; W., 238.

1889 first ascent by W. S. Drewry, A. St. Cyr.

Via creek on S. emptying into Vermilion river; camp at timberline; 7 h. to summit.

An ascent (? 1901, Whymper) has been made from Vermilion pass in 5 h. 30 m.; descent 2 h. 45 m.

SECTION VIII

PEAKS IN THE ENVIRONS OF BANFF

Hereunder are listed certain widely-scattered mountains which are naturally approached from Banff as a centre. For the most part they are adjacent to the Canadian Pacific railroad, between Kananaskis and Red Deer rivers. All of the peaks lie on the Alberta (A) slope, and belong to the bare limestone mountains of the eastern frontier series, with distorted and twisted strata as the Lewis Overthrust approaches the prairies. Trails from Banff lead through the Red Deer and Clearwater valleys to the North Saskatchewan, but are less used as a route to northern groups than the Bow and Mistaya valleys.

Map reference: Rocky Mountains Park (1923)

Mt. Aylmer. (10375) (R. M. Park, 1923)

(A) Five mi. N. of Lake Minnewanka, at sources of Ghost river. C. A. J. x, 32; RDI, 1891, ii, 50; O., 32.

1889 first ascent by J. J. McArthur.

From Lake Minnewanka.

Barrier Mtn. (9718) (R. M. Park, 1923)

(A) E. of Gable Mtn.; W. angle between Red Deer and Panther rivers.

Block Mtn. (9633) (R. M. Park, 1923)

(A) S. E. of Mt. Pulsatilla; between head of Cascade river and Johnson creek.

Bonnet Mt. (10662) (R. M. Park, 1923)

(A) Seven mi. S. E. of Mt. Douglas, at sources of Johnson creek and Cascade river; N. of Castle station, C.P.R. RDI, 1890, ii, 45; W., 301.

1890 first ascent, A. St. Cyr.
1891, J. J. McArthur.
Ascent possibly incomplete as cairn is half mi. from summit. The highest point was reached in 1927 by Oertele, *H. Feuz.*

Mt. Bourgeau. (9615) (13)
(A) Four mi. N. E. of Simpson pass; eight mi. S. W. of Banff. ABC, 47.
1890 first ascent, J. J. McArthur.
Easily ascended from camp in Healy creek valley.

Mt. Brett. (9790) (14)
(A) S. of Pilot Mt.; N. W. of Mt. Bourgeau, between Healy and Redearth creeks. C. A. J. viii, 147.
1916 first ascent by A. H. Bent, C. F. Hoogeboom, K. D. McClelland, J. Outram, E. G. Ritchie.
From camp on Healy creek via W. slopes (4 h.) and narrow W. arête (1 h. 30 m.). Rope unnecessary. Return via long snow slopes where glissading allows descent of 1000′ in 15 m.

Mt. Brewster. (9380) (R. M. Park, 1923)
(A) Lat. 51° 15′, Long. 115°, 39′; between Cascade Mtn. and Forty Mile creek.

Mt. Brock. (9445) (R. M. Park, 1923)
(A) S. of Mt. Hood; N. E. angle between King creek and Kananaskis river (Tp. 20).

Cascade Mt. (9840) (R. M. Park, 1923)
(A) Four mi. N. of Banff; N. W. of junction of Cascade and Bow rivers; E. of Forty Mile creek. C. A. J. i, 1, 58; O., 35; RDI, i, 1890, ii, 45; W., 301.
1887 first ascent, L. Stewart.
1888, J. J. McArthur.
1889, W. S. Drewry.
From Banff ascend valley of Forty Mile creek for two mi. whence the long S. W. arête may be gained and the summit reached without difficulty. Mt. Assiniboine is visible.
A. H. MacCarthy reports S. E. arête a good climb with firm rock.

Castle Mt. (9076) (R. M. Park, 1923)

(A) N. W. angle between Johnson creek and Bow river. A. J. xxxviii, 251; App., xx, 545; C. A. J. xvi, 52; Co., 42; O., 98. Dawson (Part B, 1886, 135) describes view from summit.

1884 first ascent by A. P. Coleman.

From Castle station via the small valley leading E. and N. of the mountain, from the head of which the only difficulty is a short cliff belt with loose rock.

S. E. Tower (9030′): 1926 first ascent by P. Cerutti, L. Grassi.

Route 1. From Banff-Lake Louise road into basin on E. side, and from this traverse around Bow river side to the saddle. The tower was ascended by way of a couloir on N. W. side.

Ascent 7 h. 40 m.; descent 4 h. 30 m.

Route 2. 1926, J. W. A. Hickson, *E. Feuz, Jr.*, via the E. face of the tower. Through the lower woods a long traverse around the walls of the peak to the E. led (3 h.) to difficult rock climbing. The final 900′ of vertical cliffs and chimneys, with overhanging rocks, was surmounted in 2 h. 30 m. Four ropings-off were necessary in the descent; extra ropes, slings and rope-soled shoes were employed. The difficulties are comparable to those of Mt. Louis.

Copper Mt. (9170) (14)

(A) N. W. of Pilot Mt., in W. angle between Redearth creek and Bow river.

1885 first ascent by J. Macoun, W. T. Macoun.

Mt. Cory *(Hole-in-the-wall).* (9154)
(Prel. Map R. M. Park, 1922)

(A) Adjoins Mt. Edith on W.; N. of Bow river.

Mt. Costigan. (9775) (R. M. Park, 1923)

(A) S. E. of Mt. Aylmer, between E. end of Lake Minnewanka and Ghost river.

Devils Head Mt. (9174) (R. M. Park, 1923)

(A) Seven mi. N. E. of Lake Minnewanka; N. of Ghost river. A. J. xxxviii, 67; App. xix, 246; C. A. J. xv, 134; RDI, 1892, ii, 32; W., 9.

1891, partial ascent by W. S. Drewry, unsuccessful because of precipices below summit.

1925 first ascent, L. S. Crosby, J. W. A. Hickson, *E. Feuz, Jr.*

From camp near Ghost river (5400′), peak is approached on S. W. side through a couloir (3 h.) whence a series of narrow, but not difficult, couloirs are ascended to a precipitous and fairly difficult rock wall (25′). A short traverse to the right and ascent of another couloir lead to the foot of summit ridge, steep and sharp. High, smooth rock wall on the left (N. E. side).

Ascent 5 h. 40 m.; descent 4 h. 15 mi.

Mt. Edith. (8380) (R. M. Park, 1923)

(A) In N. W. angle between Forty Mile creek and Bow river. App. xvii, 13; C. A. J. ii, 1, 136; C., 218; O., 35.

1900 first ascent by J. N. Collie, F. Stevens.

From Banff follow Lake Louise road on N. side of Bow river to valley between Mt. Norquay and Mt. Edith. Ascend this to Edith-Norquay pass leading over to Forty Mile creek. From this point a natural bridge is visible crossing a gully about half way to the summit. Ascend scree slopes and steep rocks, keeping well to the right of the bridge to the col between the two peaks of Mt. Edith, the left-hand (S.) being higher. Cross the col and ascend the W. side of the S. peak on steep but firm rocks to reach a large slab split off from the face of the peak. Ascend gully between this slab and the peak and at the top will be found an almost vertical chimney (60′) leading to the summit.

Mt. Fifi. (8500) (Banff)

(A) Adjoins Mt. Louis on N. W. C. A. J. xii, 59.

1921 first ascent by L. S. Crosby, J. W. A. Hickson, *E. Feuz, Jr.*

From camp on Forty Mile creek, ascend into amphitheatre between Mt. Louis and Mt. Fifi; work around to S. of latter to couloir running deep into the mountain on S. side (3 h. 20 m.). Ascend couloir (falling stones and rotten rock near top) to narrow notch between N. and S. towers (40 m.); both towers may be ascended over steep rock (1 h.), the N. being the higher by 50′. Rappel necessary for its descent.

Gable Mtn. (9625) (R. M. Park, 1923)
(A) Six mi. W. of Barrier Mtn.; W. angle between Red Deer and Panther rivers.
Prior to 1918 first ascent by the Geological Survey.

Mt. Girouard. (9825) (R. M. Park, 1923)
(A) S. E. of Mt. Inglismaldie; between the latter and Mt. Peechee.

Mt. Hood. (9425) (R. M. Park, 1923)
(A) N. E. angle between King creek and Kananaskis river; N. of Mt. Brock (Tp. 21).

Mt. Inglismaldie. (9725) (R. M. Park, 1923)
(A) Forms the S. shore of Lake Minnewanka.

Mt. Kidd. (9605) (R. M. Park, 1923)
(A) S. E. of Mt. Bogart; N. E. of The Tower; W. of Kananaskis river.

Mt. Louis. (8800) (R. M. Park, 1923)
(A) The first tower N. of Mt. Edith; W. of Forty Mile creek. A. J. xxxii, 68; App. xvii, 18; xix, 236; C. A. J. viii, 79; ix, 32; xii, 37.
1916 first ascent by A. H. MacCarthy, *C. Kain.*
From Banff via Edith-Norquay pass to Forty Mile creek reach (two mi. further) the N. E. base of Mt. Louis at 7000′. Ascend a chimney in the lower portion of the E. face, avoiding steep slabs in its upper portion by a traverse S. Thence over ledges to a 10′ wall above steep, wet slabs, surmounted by the aid of a rope doubled around a rock jammed between the slabs and the main wall. Work upward and toward S. over easy ground to a smooth steep wall below the ridge separating the E. from the S. face. A chimney and a crack are descended to an easy ledge and a grassy platform on the S. face. To W. and 90′ above, a narrow couloir is reached over steep rocks and ascended to within a short distance of the ridge dividing the E. from the S. face, whence the ridge itself is gained by way of the next parallel gully to W.; this requires a 12′ rope-off to reach the bottom of the gully, which is then ascended to a large platform, 450′ below the summit. A crack about 12′ deep and

rising at an angle of 75° reaches the final peak and is ascended (1 h.). Mt. Louis is considered one of the most difficult rock climbs in the Canadian Rockies.

Ascent from point on E. face where climbing begins, 4 h.

Guideless ascents were made in 1926 by A. W. Drinnan, L. Grassi; and in 1927 by B. Gilman, B. Jefferson.

Massive Mt. (9950) (Prel. Map R. M. Park, 1922)

(A) E. of Pilot Mt.; S. of Massive station, C.P.R.

Mt. Norquay. (8276) (R. M. Park, 1923)

(A) Adjoins Mt. Edith on E.; N. of Bow river. C. A. J. viii, 79, 135.

The first recorded ascent is that of 1917 by H. W. G. Greenham, but this appears not to be the first ascent.

From N. W. corner of second Vermilion lake, near motor road, ascend rocks to E. ridge. A large gendarme is traversed to S. W. Easy going on arête to final tower which is ascended by a short, wide chimney.

Ascent, road to summit, 4 h.

Panther Mt. (9655) (R. M. Park, 1923)

(A) Between sources of N. and S. branches of Panther river.

1891 first ascent by J. J. McArthur.

Mt. Peechee. (9625) (R. M. Park, 1923)

(A) S. of Lake Minnewanka, adjoining Mt. Girouard on S. E. App. xxiii, 385; W., 9.

1929 first ascent by L. Grassi.

Pilot Mt. (9650) (14)

(A) N. of Mt. Brett, in S. angle between Redearth creek and Bow river.

Mt. Prow. (9535) (R. M. Park, 1923)

(A) Five mi. N. W. of Snow Creek pass; E. of Red Deer river.

1918 first ascent by the Topographical Survey.

Mt. Pulsatilla. (10060) (R. M. Park, 1923)

(A) In angle between heads of Baker and Johnson creeks.

Mt. Rundle. (9838) (R. M. Park, 1923)

(A) S. E. angle between Spray and Bow rivers. A. J. xviii, 99; C. A. J. x, 80; O., 32; Blackwood's Mag., June, 1913, 776.

1888 first ascent by J. J. McArthur.

1907. G. Brewster, J. W. A. Hickson. Ascended (from Banff) second and third peaks.

1924. L. Coolidge, G. Higginson, J. E. Johnson. From Spray Lake camp cross stream and ascend gully above the bridge. Gully ends in scree slopes below tower on S. E. ridge; traverse N. below tower and attain ridge which is broken, but easily followed to summit. Rope not required. The highest point is the third S. from Banff.

Saddle Peak. (9288) (R. M. Park, 1923)

(A) Five mi. E. of Lake Minnewanka, between N. and S. forks of Ghost river.

Three Sisters. (N.E., 8840; C., 9285; S.W., 9734) (R. M. Park, 1923)

(A) S. of Canmore station, C.P.R. C. A. J. xii, 182; O., 31.

1. **N.E. peak.** 1925 first ascent by A. W. Drinnan, M. D. Geddes, L. Grassi, T. B. Moffat.

2. **Central peak.** 1921 first ascent by M. B. Morrow. From Canmore via Three Sisters canyon and steep, difficult climbing to 2-3 saddle; thence to summit.

3. **S.W. peak.** 1889 first ascent by J. J. MacArthur. The highest point was occupied as a triangulation station and there is filed in the Surveyor General's office a photographic panorama.

Unnamed. (10260) (R. M. Park, 1923)

(A) Three mi. W. of Bonnet Mt.; head of Bonnet glacier (Red Deer river); N. of Mt. Pulsatilla.

Unnamed. (10189) (R. M. Park, 1923)

(A) W. angle of Snow creek and Panther river; seven mi. E. of Mt. Douglas.

1918 first ascent by the Topographical Survey.

Unnamed. (10082) (R. M. Park, 1923)
(A) Five mi. N. of Bonnet Mt.; head of Panther river.
1920 first ascent by the Topographical Survey.

Unnamed. (10040) (R. M. Park, 1923)
(A) S. E. of Block Mtn.; three mi. W. of Sawback lake (Cascade river); E. of Johnson creek; W. of pass connecting head of Forty Mile creek and Cascade river. RDI, 1891, ii, 44.
1890 first ascent by W. S. Drewry.

Unnamed. (10013) (R. M. Park, 1923)
(A) Seven mi. S. E. of Mt. Douglas; at head of Panther river.
1920 first ascent by the Topographical Survey.

Mt. White. (9040) (R. M. Park, 1923)
(A) Nine mi. E. of Mt. McConnell; N. E. of pass between Snow creek (Panther river) and Red Deer river.
Prior to 1918 first ascent by the Geological Survey.

SECTION IX

Vermilion Pass to Kicking Horse Pass

LAKE LOUISE GROUP

The Lake Louise group is bounded on the N. and W. by the main line of the C. P. R., along Bow and Kicking Horse rivers; on the S. by Otterfail river and the E. by Vermilion river. Airline distance between Vermilion and Kicking Horse passes is nineteen miles, the Divide peaks of the area bounding the Ten Peak, Paradise and Lake Louise valleys. The Divide is crossed by the mountaineering passes of Boom Lake, Wenkchemna and Abbot. By decision of the Geographic Board the Ten Peaks have been renamed the Wenkchemna Peaks.

On the Divide the average elevation exceeds 10000', Mt. Hungabee (11457) being the highest summit, although surpassed by Mt. Temple (11636) lying eastward (A). On the Divide, Mts. Dolhaform, Lefroy and Victoria also exceed 11000', while on the western (P) slope, Mt. Huber (11051) and Mt. Biddle (10888) are the highest peaks. The peaks are generally accessible from Lake Louise, Moraine lake, or Lake O'Hara, where permanent accommodations may be had.

A scenic round, requiring two days and giving access to the Lake Louise, Paradise, Wenkchemna, Prospector and Cataract valleys, may be made from Lake O'Hara by the passes: Abbot (9588'), E. Mitre (8500'), Wastach (8338'), Wenkchemna (8521'), and Opabin (8450').

The chalet at the Plain of Seven Glaciers (head of Lake Louise; opened 1926) has limited accommodation, but shortens by 2 h. the climbs adjacent to Mt. Victoria.

The well-constructed Abbot Hut (1922) in Abbot pass (9588'; Lake Louise-Lake O'Hara) has accommodation for twenty people (blankets and stove; supplies must be taken).

The Fay Hut (1927), at the tongue of the glacier extending from the Ten Peaks toward Prospectors valley, may be reached from Vermilion pass (which see, Section VII) via Marble Canyon and marked trail in 4 h., affording access to numerous peaks of the group. The hut contains beds, blankets, stove, utensils and reserve provisions (A. A. J. i, 1, 45; C. A. J. xvii, 78).

Mt. Aberdeen. *(Hazel).* (10350) (15)

(A) Between Haddo Peak and E. Mitre pass; E. buttress of Lefroy glacier. A. J. xviii, 109; xxxii, 73; xxxiii, 193; C. A. J. i, 2, 330; ix, 140; O., 88; W. 242; W. S (I.L), 28.

1894 first ascent by S. E. S. Allen, L. F. Frissell, W. D. Wilcox.

Route 1. From Paradise valley ascend shale slopes and rock slides to S. shoulder, reached by way of a short chimney. Follow snow arête to summit.

Ascent 5-6 h.

Route 2. From summit of Haddo Peak (which see) descend to Aberdeen glacier and reach summit of Mt. Aberdeen over a steep snow and ice arête. Descend, as in Route 1, to Paradise valley, or over W. slopes to Lefroy glacier and Lake Louise.

Total time 13 h.

Route 3. 1919, V. A. Fynn, *R. Aemmer.* From Lake Louise by trail to Saddleback cabin; thence circle head of Surprise valley to foot of Aberdeen glacier. On E. side of the fall is a narrow ice gully, next to a high and almost perpendicular cliff. By way of the gully (step-cutting), the middle portion of the icefall is reached and permits good progress. A large chasm, running horizontally across the fall, is crossed near its E. end and easy ground gained above the eastern cliff. The Haddo-Aberdeen saddle is gained (6 h. 40 m. from Lake Louise) and the arête followed to

summit of Mt. Aberdeen (1 h.). Descent may be made as in Route 2: Haddo summit 30 m.; Saddleback cabin via Haddo glacier, 2 h. 30 m.; total time from Lake Louise 13 h.

Mt. Allen (*Peak Six; Shappee*) (10830) (15)

(A-P) S. E. of Mt. Tuzo and between it and Peak Five. A. J. xxii, 334.

1904 first ascent by Miss G. Benham, *C. Kaufmann.*

Route 1. From Fay Hut via S. glacier.

Route 2. From col between Peaks Three and Four (from Moraine lake) skirt Peaks Four and Five on S. Traverse to W. arête and ascend via steep rotten rock.

Route 3. The W. arête may be reached via Consolation and Middle passes and the S. snowfield.

[S. E. S. Allen, for whom the peak was named, constructed the first map (privately printed, 1894) to contain the name of Lake Louise. He was the first man to reach Abbot pass (with an Indian, Yuh Carryer, from Lake O'Hara; 1894) and applied Indian numeral names to the Ten Peaks.]

Mt. Babel. (10185) (15)

(A) In S. W. angle formed by valley of the Ten Peaks and Consolation valley; N. of Mt. Fay. C. A. J. iii, 73.

1910 first ascent by A. R. Hart, E. O. Wheeler, L. C. Wilson, H. H. Worsfold.

From Moraine lake ascend moraine of Fay glacier, keeping close to rocks on N. margin, which are ascended when base of the icefall is reached. Thence over glacier to col between Mts. Fay and Babel; follow arête to summit, 1000′ higher.

Mt. Biddle. (10888) (15)

(P) S. W. buttress of Opabin pass; between it and Lake McArthur. A. J. xxvii, 176; xxix, 75; App. x, 298; O., 96.

1903 first ascent by A. Eggers, H. C. Parker, *C. Kaufmann, H. Kaufmann.*

Route 1. From camp near head of Prospectors valley cross several ridges to S. arête. Follow this arête, which overhangs Prospectors valley and affords strenuous but not difficult climbing. Below final cliffs an easy traverse over rock and snow leads to the N. face above Lake McArthur. Last few hundred feet consists of very steep snow and rock

which is often ice-glazed. A short but easy rock chimney is climbed just below the summit.

Route 2. 1909, T. P. Forde, M. Goddard, J. J. Trorey, J. Watt, *G. Feuz.* From Lake O'Hara follow trail to Lake McArthur, and from W. end of the lake take S. bank and ascend E. of Park Mt., via easy rocks and a short couloir, to the W. arête of Mt. Biddle, between the lake and Misko creek. Continue a short distance toward the mountain, then descend a few hundred feet and cross to S. W. ridge, which in turn is crossed and slopes traversed to the S. arête overlooking Prospectors valley, whence the mountain is ascended as in Route 1. C. A. J. ii, 2, 99.

Route 3. 1915, A. Carpe, *R. Aemmer.* As in Route 2 to col between Park Mt. and Mt. Biddle; thence ascend straight up W. arête, traversing on S. W. face where necessary. The rock is good, and the arête fairly difficult near the top, somewhat resembling Hungabee.

Time 12-14 h., including descent by Route 2. C. A. J. xiii, 257.

Mt. Bident. (10119) (15)

(A) E. of Mt. Quadra; W. of Consolation pass. A. J. xxii, 205; xxiv, 230; App. xi, 128; C. A. J. iii, 191.

1903 first ascent by C. S. Thompson, *H. Kaufmann.*

Via Consolation valley and pass, cross to S. E. angle of Mt. Bident, whence the climb is on rock. Not difficult except for a band of black rock about 400′ high, which may be passed in one of the following:

a. In central portion of face below a triangular depression where a chimney breaks through. Good handholds.

b. Via the rising ridge of the pass to its junction with the S. E. angle of the mountain, thus flanking the cliff but necessitating a traverse over a ledge not clearly continuous with the foot of the depression mentioned above.

Ascent from Consolation pass 3 h. 30 m.

Boom Mt. (9047) (15)

(A-P) E. of Chimney Peak and Boom Lake pass; N. W. buttress of Vermilion pass; S. of Boom Lake. ABC, 34, 38.

1903 first ascent by the Topographical Survey.

Cathedral Crags. (10083) (16)

(P) The N. W. summits of the Cathedral massif. App. ix, 379; x, 88; P., 169.

1900 first ascent by J. Outram, W. Outram, *C. Häsler.*

From Field follow railroad 3.5 mi. E., ascending thence over logs, boulders and débris to steep glacier tongue descending towards railroad N. of the Crags. Ascend the ice (step-cutting) close to the W. wall, working to easier slopes above. From the névé, circle to the E. base of final pinnacles and up snow to foot of rocks, whence 200′ of climbing on steep slabs and narrow ledges leads to summit.

The mountain was ascended in 1908 by E. Cowdray, *G. Feuz*, and in 1923 by J. W. A. Hickson, *E. Feuz, Jr., W. Feuz*, both parties reaching the E. glacier from Cataract brook and following it to the E. wall 450-500′ below the summit. Outram's couloir now contains no snow and is very steep, requiring roping-off in descending. A. J. xxxv, 200; C. A. J. xiv, 10; xv, 133.

Ascent from Field or Hector and return, 10-12 h.

Cathedral Mt. (10464) (16)

(P) S. E. and highest peak of massif lying in S. W. angle between Cataract brook and Kicking Horse river; E. of Mt. Stephen. App. ix, 370; x, 88; C. A. J. ii, 2, 141; O., 171.

1901 first ascent by J. Outram, *J. Bossoney, C. Klucker.*

Route 1. From Field follow railroad E. and ascend valley N. E. of Mt. Stephen, traversing long slopes of débris and boulders and ascending a gully filled with snow and loose rock to ridge connecting Cathedral Mt. with Cathedral Crags (5 h.). Follow narrow snow arête to summit (35 m.).

Route 2. Traverse; summit as in Route 1. Retrace to col between Cathedral Mt. and the Crags, thence descending to E. glacier and reaching Cataract brook trail in about 2 h.

Ascent from Field 5 h.; descent to Hector 2 h. 30 m.

Chimney Peak. (9850) (15)

(A-P) The second summit S. of Middle pass and Mt. Quadra; W. of Boom lake. App. vii, 129; C. A. J. iii, 75.

1910 first ascent by T. G. Longstaff, E. O. Wheeler.

From Consolation pass, round S. E. shoulder of Mt. Bident to moraine of Boom glacier. Cross glacier to col between Chimney Peak and unnamed peak to N. Follow N. snow ridge to chimney in middle of N. cliff; this (60′) is ascended for about 15′ and thence by rocks on its left to its top. The N. arête is regained to the right via a short gully and follow to the summit.

Ascent from moraine of Boom glacier, 3 h.

The N. col should be accessible from the Fay Hut and connection made with the above route.

Mt. Collier *(Nichols).* (10400) (15)

(A-P) Between N. peak of Mt. Victoria and Popes Peak. A. J. xxii, 75; C. A. J. ix, 140; x, 7.

?1903 first ascent by the brothers Collier.

Route 1. Via Lake Louise trail and upper Victoria glacier to col between Victoria N. peak and Mt. Collier; thence by rock arête to summit.

Route 2. The S. E. face may be descended to the upper Victoria glacier. Ascent may be combined with that of Victoria N. peak or Popes Peak.

Ascent from Victoria-Collier saddle 30 m.; total time from Lake Louise, 12 h.; combined with Victoria N. peak, 15 h.

Mt. Deltaform *(Peak Eight; Saknoxa).* (11235) (15)

(A-P) Between Mt. Neptuak and Mt. Tuzo. ABC, 33; A. J. xxii, 75; App. x, 295; C. A. J. ii, 2, 55; iv, 143; O., 135; W., 251.

1903 first ascent by A. Eggers, H. Parker, *C. Kaufmann, H. Kaufmann.*

From camp in Prospectors valley (7500′), cross boulders and scree, skirting Neptuak Mt. to middle of S. W. base of Mt. Deltaform. Ascend a long broad snow couloir, partly by rocks on its sides, to steep but not difficult ledges. Then up a 40′ chimney (few holds and many loose stones) to ledges and a shale bed leading to S. arête opposite Mt. Tuzo. The last 1000′ of ascent (2 h.) consists in following the arête toward the main peak and then traversing on the S. face. A buttress and several small gendarmes are passed, an ice couloir is traversed and the W. arête gained by a

short chimney. Rocks of the final peak are surmounted by a narrow crack leading to easy snow slopes and a pinnacle summit. (The peak has a reputation in the Lake Louise district for its loose rock and dangerous stonefalls.)

Ascent 8 h.; descent 6 h. 30 m. Total time from camp near Eiffel lake, 26 h.

Devils Thumb. (8066) (16A)

(A) A minor elevation on the E. arête of Mt. Whyte; W. of Big Beehive. A. J. xviii, 99; W. (LL), 17.

1891 first ascent by S. E. S. Allen.

From Lake Louise follow trail to Lake Agnes (1 h.); thence via trail to ridge of Beehive, whence the objective point is reached over shale and easy ledges (3 h. from Lake Louise). The short, but steep, N. buttress affords a pleasant climb. Rope advisable for inexperienced climbers. A short but interesting traverse of the Three Needles (8500'), on E. arête of Mt. Whyte, may be combined with the ascent of Devils Thumb in 2 h. additional time. From summit of Devils Thumb cross shale slopes on S. side of Whyte E. arête to a dry couloir which leads to the ridge just W. of the western needle. The E. cairn is gained by traversing the W. and central points over a sharp and precipitous arête. The rock is firm, the views of Lake Louise and Lakes in the Clouds unusually fine, and the climb ideal for training purposes.

Mt. Duchesnay. (9002) (R. M. Park, 1923)

(P) S. W. of Mt. Stephen; W. of Mt. Odaray; head of N. W. fork of McArthur creek. O., 184; TSB, 1905-6, 100.

1905 first ascent by the Topographical Survey.

Eiffel Peak. (10091) (15)

(A) Adjoins Mt. Pinnacle on S. W.; E. buttress of Wastach pass. A. J. xviii, 112; Alp. Amer, 18; App. x, 89; C. A. J. i, 2, 331; iii, 192.

1901 first ascent by C. S. Thompson, G. M. Weed, *H. Kaufmann.*

From Moraine lake follow Sentinel pass trail to Larch valley, whence the S. E. arête is ascended over scree and broken rock to the summit. The N. tower has not been

climbed; it is nearly equal in height to the main peak, from which it is separated by a deep (400′) gap.

Ascent from Moraine lake, 5 h. 30 m.

Fairview Mt. *(Goat Mt.).* (9011) (15)

(A) Forms E. shore of Lake Louise; in S. W. angle between the lake and Bow river. A. J. xviii, 104; App. viii, 128; O., 109; RDI, 1892; W. (LL), 20.

1892 first ascent by J. J. McArthur.

Route 1. Follow marked trail from Lake Louise to the Saddleback (tea-house; 7500′; caretaker during summer months), whence faintly-marked trail leads N. through larch trees to zigzags over scree on S. face which may be followed to summit (view of Bow valley from Pilot Mt. to Hector lake). Snow slopes to S. E. may be glissaded in descending. The excursion may be combined with a walk to nearby (20 m.) Saddle Mt. (7983′) affording splendid views of Paradise valley, Mt. Temple, and part of the Ten Peak group. Marked trail descends from Saddleback through Surprise valley to Paradise valley, by which Lake Louise may be regained, or Sentinel pass (between Mts. Temple and Pinnacle) crossed to Moraine lake.

Ascent of Fairview Mt. from Lake Louise, 4 h.

Route 2. The mountain has been ascended on several occasions by the prominent scree-gully at the N. angle, from Chateau Lake Louise. The route is somewhat exposed to the danger of falling stones and has little to recommend it.

Mt. Fay *(Peak One; Heejee).* (10622) (15)

(A-P) W. of Consolation valley, between Mt. Quadra and Mt. Little. A. A. J. i, 1, 48; A. J. xxii, 333; xxiv, 234; App. xi, 332; C. A. J. iii, 192; O., 132.

1904 first ascent by Miss G. Benham, *C. Kaufmann.*

Route 1. The stock route leads from the Fay Hut via the S. glacier. Cross to E. lobe of ice and reach S. W. face where a well-defined snow couloir leads up to left of summit. The couloir is followed (step-cutting) to higher slopes and the final arête.

Total time from hut, 9 h.

Route 2. Via the couloir between Peaks Three and Four. Ascend left side of couloir on rock and snow; cross col at

summit and traverse snowfield around base of Mt. Little to foot of the peak whence snow slopes lead to top.

Route 3. From Moraine lake via Fay glacier, W. of Mt. Babel, ascending close to rocks of the latter and utilizing them where possible; then by margin of the icefall (step-cutting). The upper nevé is then traversed to the base of the peak (4 h.). Care must be taken not to ascend the rocks of Mt. Babel too far as cliffs cut off access to upper snowfield. The route is somewhat exposed to possible ice falls from the upper glacier.

Ascent from Moraine lake, 7 h. 30 m.; descent, 4 h. 30 m.

Route 4. From Consolation valley, via Consolation and Middle passes and S. glacier as in Route 1.

Peak Five *(Sapta).* (10018) (15)

(A-P) Between Peak Four and Mt. Allen. A. A. J. i, 1, 47; Alp. Amer., 18.

1927 first recorded ascent by H. F. Ulrichs and companions.

The stock route leads from the Fay Hut via the S. glacier. The peak may be ascended either from the 4-5 cirque or the 5-6 cirque. The former route strikes up the S. W. face (snow, followed by loose scree and rock) to the S. aréte, which is then easily followed to the summit in 30 m. The latter route, up the E. face, leads over steep snow (step-cutting) and easy rock to the same S. arête, some 300′ S. of the summit.

[Reasonable doubt may be expressed as to the first ascent of this mountain. G. T. Little included it in his list (A. A. C. Register, 1908). G. M. Weed, however, doubts that the party ascended Peak Five. Miss Tuzo (Mrs. Wilson) considered Peak Seven, which she ascended in 1906, as the "last unconquered of the Ten Peaks," hence implying an ascent of Peak Five. Ulrichs found no summit record. It is the lowest of the Ten Peaks and so dominated by Peak Six that it appears rather as a spur of the latter. From Moraine lake it is often confused with Peak Four.]

Peak Four *(Tonsa).* (10028) (15)

(A-P) Between Peaks Three and Five. A. A. J. i, 1, 47; App. x, 92.

1901 first ascent by G. T. Little, C. S. Thompson, G. M. Weed, *C. Kaufmann.*

Route 1. From the Fay Hut via the S. glacier and E. snow slopes.

Route 2. Via couloir from Moraine lake between Peaks Three and Four.

Route 3. Via Consolation and Middle passes.

From the Fay Hut it is possible to combine the ascents of Peaks Two, Three and Four in a single day.

Glacier Peak. (10831) (15)

(A-P) S. of Mt. Lefroy; N. of Ringrose Peak. A. J. xxv, 82; C. A. J. ii, 2, 84.

1909 first ascent by V. A. Fynn, C. R. Hart, C. A. Richardson, L. C. Wilson.

Route 1. From Lake O'Hara follow trail to Lake Oesa (6690′); 50 m. Thence over scree and a small glacier, the bergschrund of which is easily crossed to a deeply cut but not steep couloir leading to a small gap in the main ridge between Glacier Peak and Ringrose Peak. Keeping close to rocks on N. side of the couloir, take to the face just below the gap but avoid traversing N. Near the main ridge is seen the mouth of a steep narrow ice couloir; gain the crest of the rib on the N. side of this couloir (rotten rock) and bearing slightly N. attain the main arête, turning the last rocks on the N. over an ice slope covered with hard snow. Traverse to faintly-marked S. W. arête of final peak and reach corniced summit.

Ascent from Lake Oesa, 4 h. 30 m.; descent, 2 h. 35 m. Total time from Lake O'Hara 10 h. 30 m.

Route 2. 1918, V. A. Fynn, *R. Aemmer.* From Paradise valley via Horseshoe glacier; from the bergschrund ascend steep slopes to a rock rib just S. of the snow couloir descending from the col between N. peak of Ringrose and Glacier Peak. Near upper portion of rib traverse N., crossing the couloir and continuing ascent close to its N. margin. The main arête is reached slightly N. of the col and followed to summit. The peak may be traversed by descending to Lake Oesa as in Route 1.

Ascent, 7 h. 50 m.

Haddo Peak. (10073) (15)

(A) N. E. of Mt. Aberdeen; between Lake Louise and Paradise valley. A. J. xxxii, 73; C. A. J. ix, 140; D. Ö. A. V. xxxvi, 138.

1903 first ascent by E. Tewes, *C. Bohren.*

Route 1. Via S. W. arête over snow and ice from summit of Mt. Aberdeen (which see).

Route 2. From Saddleback via rock rib dividing the N. glacier between Mts. Haddo and Aberdeen. The glacier is ascended to the foot of the couloir on the W. Ascend rocks on N. side of this couloir to E. face of final peak and thence to summit.

Mt. Huber. (11051) (15)

(P) N. E. of Lake O'Hara; between Wiwaxy Peaks (8473) and Victoria arête. A. J. xviii, 116; Alp. Amer., 19; C. A. J. ii, 2, 218; vi, 238; D. Ö. A. V. xxxvi, 140.

1903 first ascent by E. Tewes, *C. Bohren, C. Kaufmann.*

From E. end of Lake O'Hara ascend scree slopes to Wiwaxy-Huber saddle. Traverse along W. face of Mt. Huber and reach summit via N. E. arête over snow slopes (see also Mt. Victoria, Route 2, S. peak). A variant of the above may be made by ascending direct to the crest of the W. arête and thence up steep rocks and chimneys to summit.

Mt. Hungabee. (11457) (15)

(A-P) S. of Ringrose Peak; E. buttress of Opabin pass. ABC, 33; A. J. xxii, 75; xxv, 88, 561; App. x, 91, 291; xii, 231; C. A. J. i, 1, 80; ii, 2, 78; O., 138.

1903 first ascent by H. C. Parker, *C. Kaufmann, H. Kaufmann.*

The S. W. face overlooking Prospectors valley extends from the W. arête at an angle just under 50° and is broken by three steep, horizontal pitches. The first (8900′) is the highest and easiest, with good rock. The second (9500′) is vertical but is broken by a chimney usually filled with ice or snow. The third pitch (10900′) is steep but safe. Between the first and second pitches the S. W. face is cut by five couloirs: the first loses itself in the W. arête below the second pitch; the second couloir breaks through the second pitch as the chimney referred to and continues through the

third pitch to the main N. arête near the summit. The remaining couloirs do not break through the second pitch but are continued above it, losing themselves in the third pitch. All five couloirs break through the first pitch.

Route 1. From Opabin pass, ascend the W. arête, bearing S. over easy ledges until opposite the middle of the first couloir which is crossed to a ridge on the far side leading to the foot of the ice chimney in the second pitch. This main couloir may be followed to the N. shoulder at the base of the peak, the top being gained by traversing steep slopes below the summit arête.

Route 2. A (safer) variant of the preceding. From the ice chimney above the second pitch a short traverse is made on the rocks on S. side around a corner, whence the third pitch is surmounted by means of a rock couloir leading to the last steep slopes of the S. W. face (brittle rock with few holds) and the N. arête about 30′ N. of and just below the summit.

Ascent from Lake O'Hara, 8 h.; descent, 7 h. 45 m. From Lake O'Hara to Opabin pass and foot of W. arête, 3 h. 15 m.

Route 3. Via N. ridge. 1925, V. A. Lynn, *R. Aemmer* Ascend W. face of N. (main) ridge to lowest gap between Ringrose Peak and Mt. Hungabee, and follow N. ridge to summit. The rocks are attacked perpendicularly below summit of Ringrose Peak, bearing gradually S; no difficulties to gap; ridge thence rotten but not steep.

Lake O'Hara to foot of N. ridge, 2 h. 30 m.; to gap, 3 h.; to summit, 3 h. 10 m. Descent to Lake O'Hara, 5 h. A. J. xxxvii, 376; C. A. J. xv, 132.

Mt. Lefroy. (11230) (15)

(A-P) E. buttress of Abbot pass, separating it from Mt. Victoria; N. of Glacier Peak; W. of The Mitre. ABC, 33; A. J. xviii, 548; xix, 105; xxxii, 74; App. viii, 122, 133; C., 16; C. A. J. i, 1, 80; O., 121; Sierra ii, 1, 149.

1897 first ascent J. N. Collie, H. B. Dixon, C. E. Fay, A. Michael, C. L. Noyes, H. C. Parker, C. S. Thompson, J. R. Vanderlip, *P. Sarbach.*

Route 1. Lake Louise trail and lower Victoria glacier, leading to snow slopes between Mts. Lefroy and Victoria

which are ascended to Abbot pass (9588'; hut). Thence via W. face, a direct ascent is made toward the summit, over snow, ice and outcropping rock, the difficulty being directly dependent on snow conditions.

[There have been two fatal accidents on this route: P. S. Abbot in 1896, and M. D. Geddes in 1927; both climbers unroped.]

Lake Louise to Abbot pass, 4-5 h.; pass to summit, 3-4 h. The ascent has been combined with that of the main peak of Mt. Victoria in 22 h., total time from Lake Louise.

Route 2. 1913, Honigman, *R. Aemmer.* Mt. Lefroy has been ascended several times by the couloir leading through the basal cliffs from lower Victoria glacier to the snow of the N. W. slope (fixed ladder). The arête is gained N. of the summit. (The route parallels, but avoids the Abbot pass route which is exposed to occasional avalanches from Mt. Victoria in the early season; the rock of the couloir is, however, treacherous, and made disagreeable by water.) Ice on the arête may require much step-cutting.

Chateau Lake Louise to foot of couloir, 2 h. 5 m.; snow slopes above couloir, 2 h.; N. arête, 3 h.; summit, 3 h. 30 m. A. J. xxxv, 41; C. A. J. xii, 177.

Mt. Little *(Peak Two; Nom).* (10303) (15)

(A-P) S. E. of Peak Three and between it and Mt. Fay. A. A. J. i, 1, 48; A. J. xxii, 334; App. x, 92.

1901 first ascent by G. T. Little, C. S. Thompson, G. M. Weed, *C. Kaufmann.*

From Moraine lake via couloir between Peaks Three and Four, and W. slopes. The mountain was ascended in 1904 by Miss G. Benham, *C. Kaufmann*, from Moraine lake via Consolation and Middle passes and the S. snowfield.

The usual route is from the Fay Hut, up the rocky S. face. The ascent may be combined with Peaks Three and Four (which see).

Total time from hut, 6 h.

The Mitre. (9480) (15)

(A) Between Mt. Lefroy and Aberdeen; head of Lefroy glacier. A. J. xviii, 109; C. A. J. iv, 132; x, 6; O., 88; W., 46; Scribner's Mag. June, 1903, 646.

1901 first ascent by *J. Bossoney, C. Klucker, C. Kaufmann, J. Pollinger.*

Lake Louise trail is followed to Victoria glacier which is crossed; skirt N. margin of Lefroy glacier to base of S. W. slopes of Mt. Aberdeen. Ascend steep ledges and broken rock in direction of E. Mitre pass to which a traverse across an arm of the glacier (step-cutting) gives access. Cross the col and traverse horizontally around the base of the cliff (loose stone) toward S. E. A wet, slanting couloir blocked by a chock-stone is ascended for 100', and a second (Y) couloir crossed below its branches. A "letter-box" gives access through the rib to a third deep couloir that cuts the whole E. cliff from the top of the shoulder to the basal scree slopes (stones fall here). The vertical edge of this couloir (good holds) is climbed for 75' and the horizontal top of the N. arête gained and followed to the summit (several narrow chimneys and steep pitches). The E. Mitre pass is also easily reached over steep scree slopes from Paradise valley, where horses can be taken to the base of the mountain.

Ascent from col to summit, 1 h. 30 m.; descent, 1 h. 30 m. Chateau Lake Louise to summit, 5 h.

Narao Peak. (9557) (16)

(P) Culminates N. W. arête of Popes Peak; E. of Cataract brook. ABC, 33.

Neptuak Mt. *(Peak Nine).* (10617) (15)

(A-P) N. W. of Mt. Deltaform; S. E. buttress of Wenkchemna pass. A. J. xxi, 370; xxiv, 235; C. A. J. xiv, 48; C., 315; O., 113.

1902 first ascent by J. N. Collie, H. E. M. Stutfield, G. M. Weed, H. Woolley, *C. Kaufmann.*

From Wenkchemna pass follow the crest of the jagged N. W. arête with occasional traverses on S. side to summit rocks which are usually snow-covered. The final rocks are troublesome and best negotiated from S.

Mt. Niblock *(Popes Peak).* (9764) (16)

(A) N. of Mt. Whyte; W. of Lake Agnes. ABC, 30; Scribner's Mag. June, 1903; W., 302.

1899 first ascent by W. D. Wilcox.

Route 1. From Lake Louise follow trail to Lake Agnes and into Whyte-Niblock cirque, ascending scree and broken rock to lowest point of S. arête which is followed to the summit.

Ascent from Lake Louise 4 h. 30 m.

Route 2. 1904, M. P. Bridgland, H. Wheeler. From Lake Agnes by way of the Niblock-St. Piran col and the E. arête.

Mt. Owen. (10128) (R. M. Park, 1923)

(P.) S. E. of Mt. Duchesnay; N. W. angle between McArthur creek and Ottertail river. Alp. Amer., 19; RDI, 1893, ii, 75.

1892 first ascent by J. J. McArthur.

Park Mt. (9761) (15)

(P.) Forms S. bank of Lake McArthur; culminates W. arête of Mt. Biddle. Visitors' Book, Lake Louise; C. A. J. ii, 2, 86.

1904 first ascent by the Topographical Survey.

1907, L. Frost, *P. Kaufmann.*

Route 1. Trail from Lake O'Hara to Lake McArthur (1 h. 15 m.). Ascend directly up face from N. W. end of lake, over rotten but not difficult rock. In descending a harder but more interesting route may be found down the W. end of the peak.

Ascent from Lake McArthur, 2 h.; descent, 1 h. 30 m.

Route 2. From Lake McArthur ascend rock and snow couloir in N. E. face to lowest depression between Park Mt. and Mt. Biddle and follow scree arête to summit.

Route 3. 1909, V. A. Fynn. Via N. E. face. The first buttress is overcome by means of a couloir close to N. end of lake. Thence climb steep snow slopes to foot of rock rib descending from apparent summit; follow this rib, bearing W. and reach N. arête near summit. Complete the ascent via W. side of this arête over rocks (rotten and difficult). The true summit is a long ridge to E. On descent, follow S. arête and then strike W. down to McArthur creek, traversing N. wherever possible.

Ascent from Lake McArthur, 3 h.; descent to foot of McArthur pass, 2 h. 20 m.

Pinnacle Mt. (10072) (15)

(A) S. W. of Mt. Temple and Sentinel pass; N. E. of Eiffel Peak; between Paradise valley and valley of the Ten Peaks. A. J. xviii, 12; App. xix, 232; C. A. J. i, 2. 197; ii, 2, 45; viii, 71; x, 8.

1909 first ascent by J. W. A. Hickson, *E. Feuz, Jr., R. Aemmer.*

From Moraine lake follow Sentinel pass trail to Larch valley, skirting S. slopes of Pinnacle Mt. and ascending shale and broken rock to Eiffel-Pinnacle col (4 h., roping place). Traverse ledges northward on Moraine lake side for 300′ to base of a steep pitch (fixed rope) which is ascended to the arête. Follow ledges N. E., keeping to arête or just below it on Moraine lake side. A black tower ahead (apparent summit) is split by a chimney (60′, fixed rope) which is ascended to easy shale slopes leading to the summit. The chimney may be avoided by a traverse to the N. (left) on very rotten rocks to a snow-filled gully leading to the summit, but this is not recommended.

Ascent from Moraine lake, 6 h.

Popes Peak *(Despine).* (10376) (16)

(A-P) S. buttress of Kicking Horse pass; between Cataract brook and Victoria glacier. ABC, 30; C. A. J. iv, 148; vi, 251; x, 7; W., 266.

1905 first ascent by L. C. Amery, *C. Kaufmann.*

Route 1. Via Ross lake and N. glacier.

Route 2. Via S. E. face from upper Victoria glacier, reached from Lake Louise by trail.

Route 3. Via S. W. arête from summit of Mt. Collier (which see). Ascent from Lake Louise (preferable from Plain of Seven Glaciers chalet), with traverse of Mt. Collier, 12 h.

Mt. Quadra. (10420) (15)

(A-P) S. E. of Mt. Fay; N. of Middle pass. A. J. xxxv, 42; C. A. J. iii, 52; xii, 178.

1910 first ascent by F. C. Bell, A. M. Gordon, J. W. A. Hickson, *E. Feuz, Jr., G. Feuz.*

Route 1. From Fay Hut via S. glacier.

Route 2. Via Consolation valley and pass (8390′) to S. side of Mt Bident. Cross snowfield to Middle pass (9500′), just S. of Mt Quadra's main peak. Thence over snow and boulders, followed by short bits of rock climbing in S. arête to summit. The last portion of the arête demands care because of rotten rock. The three remaining lower peaks may be traversed by following the arête E. toward Mt. Bident; the last two are difficult, the final one being more accessible from the Bident-Quadra col.

Route 3. Descent from highest peak may be made to Middle pass, whence the snowfield leading to Mt. Fay is reached; circling this mountain and crossing to Fay glacier, and a shoulder of Mt. Babel, shale slopes can be followed to Consolation valley (much longer than Route 2.).

Consolation pass to highest summit 2 h. 10 m. Traverse of remaining summits, 3 h. 30 m.

Ringrose Peak. (10765) (15)

(A-P) Between Glacier Peak and Mt. Hungabee. A. J. xviii, 116; xxv, 81.

1909 first ascent by V. A. Fynn, E. F. Pilkington.

N. and S. summits of which the latter is higher. S. of higher summit is a prominent gendarme on the main arête, which drops abruptly to Ringrose-Hungabee col. The S. W. face presents two couloirs, the first descending from the main arête, S. of the N. peak; the second descending from the arête just N. of the gendarme. Both couloirs converge in a snow slope at the foot of the S. W. face. The S. W. face is reached from Opabin glacier by a broad snow-covered ledge rising N. in the direction of the Ringrose-Yukness col. At a point just below the higher summit ascend the face between the two couloirs (not difficult; falling stones) to a ledge about halfway up the face, traversing to cross the main S. couloir to the rib on its S. side. This rib separates the S. couloir from a steep curving gully, partly filled with snow, rising at first toward the Ringrose-Hungabee col and then swinging backward toward the Ringrose S. peak to be joined by an ice chimney descending on the S. side of the gendarme of the main arête. The rib is followed and the gully crossed above its junction with the ice chimney, keep-

ing close to the rocks on the N. side of the latter until further progress toward the main arête becomes impossible without crossing the chimney. Thence via a difficult irregular crack in the brittle rock, gain the crest of the rib and again reach the main S. couloir which here divides into two branches, one running toward the main peak and the other away from it toward the S. Cross the near branch and ascend to the main arête by the buttress between the two branches, striking it between the gendarme and the S. peak. An easy wall is followed by a narrow, nearly level arête to the summit, the last difficulty being an 8′ depression, about 25′ deep, which requires care on account of loose rock.

Ascent from Lake O'Hara 7 h.; descent 5 h.

Mt. Schaffer. (8834) (15)

(P) E. buttress of McArthur pass; S. of Lake O'Hara, culminating N. W. arête of Mt. Biddle. C. A. J. ii, 2, 196.

1909 first ascent by M. Goddard, W. S. Richardson.

Follow N. W. arête until a deep notch is reached; descend toward Lake McArthur to foot of main peak and ascend by steep and moderately difficult rock. The peak may be traversed by descending the E. face toward Mt. Biddle until a vertical wall is reached. This is descended by a 70′ chimney, filled with loose rock, but not difficult. An easy snow couloir leads to Biddle glacier.

Sheol. (9118) (15)

(A) Culminates arête extending N. E. from Mt. Haddo; N. side of Paradise valley. A. J. xviii, 111.

No data as to first ascent.

A cairn on the summit is visible from Saddleback and may be reached by following the arête from the summit of Mt. Haddo (which see; the peak ascended by Tewes, he calls Sheol, but it is evident that he climbed Mt. Haddo).

Mt. Stephen. (10495) (R. M. Park, 1923)

(P) Above and directly E. of Field station, C.P.R. A. J. xxii, 334; App. vii, 288; viii, 26; C. A. J. i, 1, 118; xv, 138; RDI, 1888, ii, 100; 1892, ii, 106.

1887 first ascent by J. J. McArthur, T. Riley.

Route 1. From Field by trail past the fossil-bed to S. arête, which is followed over shale and ledges to a cliff,

600' below summit. This is surmounted by a short chimney, a steep snow slope and a broken narrow arête leading to the summit.

Ascent from Field, 5 h.; descent, 3 h.

[The ascent of Mt Stephen by McArthur, Sept. 9, 1887, is the earliest high climb in the Canadian Rocky mountains of which there is authentic record. Starting at 4.30 A. M. they required four hours to penetrate dense forest to timberline. The final rocks were reached three hours later. They bore this inscription written in lampblack: "Hall, Whatley, Ross, September 9, 1887." An ice couloir above the rock with the names was ascended; it took all their nerve to traverse a knife-edge arête near the summit, 6385' above the railroad. A cairn nine feet high was built. (Between this and the ascent of 1892, the character of the upper portion of the peak was greatly changed and made easier by a fall of rock, estimated by McArthur at 200,000 cubic feet.)]

In 1899 the final rocks were ascended alone by J. P. Farrar (A. C. Register, iii, 116).

Route 2. In 1904 an unusual ascent was made by Miss G. Benham, *C. Kaufmann, H. Kaufmann* from Lake Louise. Starting at midnight, they crossed Abbot pass to Lake O'Hara and skirting Mt Odaray, ascended Cataract valley to base of Mt. Stephen. Mounting a snow slope they reached a ridge leading them to the summit (19 h. 30 m. from Lake Louise). The usual route was followed to Field.

Total time, 27 h. A. J. xxii, 334.

Route 3. 1927. H. F. Urachs. By the N. face. From Field along C.P.R. tracks for one mi.; thence through undergrowth, fallen trees and loose rocks to base of cliffs (black rock) encircling this side of the mountain. Two general systems of couloirs divide the N. face roughly into thirds, the left-hand system descending directly from the summit ridge, and the right hand system running down from a great mass of rock jutting from the face below the W. ridge. The left-hand (E.) system was ascended, the couloir breaking through the black rock and allowing this to be easily overcome. The bed of the couloir is followed over excellent rock, taking to the ribs when ice appears, following the right hand fork toward the centre of the face. The upper portions

of the face are exceedingly steep and icy. A small cornice was cut through to the arête, some 10 mi. W. of the summit. The ascent is continuous and exposed, but no falling stones were encountered.

Ascent from Field, 7 h. 40 m.; descent by Route 1.

Mt. Temple. (11636) (15)

(A) N. E. buttress of Sentinel pass; highest peak of Lake Louise area; between Paradise and Ten Peak valleys. App. vii, 281; xi, 73; C. A. J. x, 14; O., 143; W., 243; W. (LL), 28.

1894 first ascent by S. E. S. Allen, L. Frissell, W. D. Wilcox.

Route 1. From Moraine lake or Paradise valley to a point below the summit of Sentinel pass (8550′; between Mts. Pinnacle and Temple) on Moraine lake side (2 h. 40 m.). Thence up steep shale slopes between the S. W. and S. arêtes, following rock-slides and snow-filled couloirs to the summit arête at 11000′. The arête is crossed to the W. side and the snow followed to the top (cornice toward Moraine lake.)

Ascent from Moraine lake, 7 h. 30 m.

Route 2. 1918, V. A. Fynn, *R. Aemmer.* From Moraine lake follow the Lake Louise road as far as the first deep watercourse. Ascend to rock rib S. W. of the main summit and reach foot of big wall S. of the peak. Traverse N. E. along the foot of this wall to a large snow couloir, ascending rocks on its near side and crossing at the first opportunity. Traverse ledges to N. E., reaching a break in the big wall, immediately below the summit. Thence very steep rocks to N. E. and an icy couloir lead to the E. arête which is followed to the summit.

Ascent from Moraine lake 7 h. 30 m. A. J. xxxii, 309.

Peak Three *(Yamnee).* (10088) (15)

(A-P) Directly S. of Moraine lake, between Mt. Little and Peak Four. A. A. J. i, 1, 47; App. x, 92.

1901 first ascent by G. T. Little, C. S. Thompson, *H. Kaufmann.*

Route 1. From Fay Hut via S. glacier; the ascent may be combined with Mt. Little and Peak Four (which see).

Route 2. From Moraine lake by way of the col between Peaks Three and Four.

Route 3. By way of Consolation and Middle passes and the S. snowfield.

Mt. Tuzo *(Peak Seven; Sawtooth.)* (10658) (15)

(A-P) N. W. of Mt. Allen; E. of Mt. Deltaform.

1906 first ascent by Miss H. L. Tuzo, *C. Kaufmann.*

Route 1. From the Fay Hut via S. glacier.

Route 2. Via couloir between Peaks Three and Four, from Moraine lake (5 h.). Skirt Peak Four and cross ice slope to shale pass between Peak Five and Mt. Allen; thence round Mt. Allen to portion of glacier adjacent to Mt. Tuzo (Lake Kaufmann visible in Prospectors valley) and ascend rock and shale to summit.

Moraine lake to summit, 12 h.; descent, 8 h.

Unnamed. (?10000) (15)

(A-P) Adjoins Mt. Quadra and Middle pass on S.; N. of Chimney peak. A. J. xxii, 334; C. A. J. iii, 55., 75

1904 first ascent by Miss G. Benham, *C. Kaufmann.*

Route 1. From the Fay Hut.

Route 2. Via col between Peaks Three and Four (from Moraine lake) and the N. arête.

Route 3. Via Consolation valley and Middle pass.

Vanguard Peak. (8086) (16)

(P) W. side of Cataract valley; E. buttress of Cathedral Mt. ABC, 32; C. A. J. ix, 169.

1913 first ascent by the Boundary Commission.

An interesting rock climb by the E. face.

Mt. Victoria *(Green).* (S., 11365; N., 11160) (15)

(A-P) N. W. of Abbot pass and Mt. Lefroy; between Lakes Louise and O'Hara.

S. peak: ABC, 33; A. J. xviii, 100; App. ix, 1, 31, 97; C. 23 W. (LL), 12.

1897 first ascent by J. N. Collie, C. E. Fay, A. Michael, *P. Sarbach.*

Route 1. Lake Louise trail and lower Victoria glacier; ascend steep névé to Abbot pass (hut, 9588'; 4-5 h.); thence N. W. over broken rock until main arête is reached. This is followed to the summit, traversing the top of the snow slopes on the Lake Louise side where necessary.

Ascent from Lake Louise, 8 h.; descent, 6 h. For combined route see Mt. Lefroy.

Route 2. 1909, J. P. Forde, M. Goddard, A. M. Gordon, Mrs. A. H. MacCarthy. From E. end of Lake O'Hara ascend to saddle between Mt. Huber and Wiwaxy Peaks. Follow the usual route up Mt. Huber (W. face; which see), and swing to N. into valley between Mts. Huber and Victoria. Round the head of the valley to the bergschrund on S. W. side of Mt. Victoria; traverse to foot of rock wall and ascend beside a snow chimney about 400' high to Victoria S. E. arête which is followed to summit.

Ascent from Lake O'Hara, 6 h.; descent, 4 h. 30 m. C. A. J. ii, 2, 100.

Route 3. 1922, V. A. Fynn, *R. Aemmer.* N. E. face is attained via upper Victoria glacier, the bergschrund followed by steep ice. A belt of black rock and a second ice slope are encountered, the latter leading to the arête slightly N. of the summit. Chateau Lake Louise to upper Victoria glacier, 3 h.; foot of final wall, 2 h.; to top of rock belt, 1 h. 30 m. (600' below summit); arête, 3 h.; summit, 20 m. Total time of ascent 11 h. 50 m. A. J. xxxiv, 479; C. A. J. xiii, 257.

Route 4. Traverse (see under N. peak).

N. peak: Between S. peak and Mt. Collier. A. J. xxxii, 74, 307; C. A. J. ix, 140; O., 85.

1900 first ascent by J. Outram, W. Outram, J. H. Scattergood, *Clarke, Zurfluh.*

Route 1. Lake Louise trail and upper Victoria glacier, ascending steep snow slopes (700') to col between N. peak and Mt. Collier (6 h. 30 m.), whence arête is followed to summit.

Ascent from Victoria-Collier col, 2 h.; total time from Lake Louise, 12-13 h. (see Mt. Collier).

Route 2. 1909, G. W. Culver, *L. Lent, Jr., R. Hemmer.* Traverse of N. and S. peaks. To N. peak as in Route 1. The crest of the arête is followed with few exceptions, traverses being on the Lake Louise side. A short distance from the N. peak there is a 15′ drop; thence a narrow, horizontal ridge, interrupted by deep cracks over which it is possible to step, leads to a gendarme which must be climbed. On its far side is a sheer drop with good holds into a deep gap. The wall ahead is easily passed and once on the arête there is a stretch of good rock and some snow. Another deep gap is crossed to the highest point between the N. and S. peaks; 1 h. 45 m. Then (1 h.) up and down many, but not deep gaps to a platform above a 60′ drop to the very narrow ridge, which necessitates roping off (fixed sling). The next gendarme requires a traverse and step-cutting, followed by a long easy bit on the ridge to the next obstruction, which is traversed to a very deep gap. A steep wall, an easy gendarme, another gap, brings one to the last obstacle, an overhanging tower which is traversed by rotten rock on N. Thence via arête to S. peak.

Total time (descent via Abbot pass), 24 h. A. J. xxxii, 307; C. A. J. ii, 2, 92; x, 12.

The Watch Tower (?8700)

(P.) Four and one-half mi. S. E. of Hector station; E. side of Cataract valley. A striking obelisk of rock isolated by gravel streams from Mt. Victoria and Popes Peak.

Wenkchemna Peak *(Peak Ten).* (10411) (15)

(A-P.) Shoulder of Mt. Hungabee; between main peak and Wenkchemna pass. App. vii, 129; xix, 234; xx, 546; C. A. J. ii, 2, 78; xiv, 140; O., 132; A. C. C. Register, Dec. 1923, 15.

1923 first ascent by E. Bell, A. W. Drinnan, H. Herriot, T. B. Moffat, Mrs. R. Neil, Miss T. Thompson, R. Williams, *C. Häsler.*

The S. arête is followed from Wenkchemna pass over slabs and ledges, without difficulty, occasional short traverses being made on the E. side.

Mt. Whymper *(Francklyn).* (9331) (15)

(P) S. W. of Boom Mt.; in N. angle between Prospectors valley and Vermilion river. ABC, 37; C. A. J. v, 136; Scribner's Mag. June, 1903.

1901 first ascent by E. Whymper and guides.

From Vermilion pass, via E. and S. slopes to W. arête which is followed to summit.

Mt. Whyte. (9786) (16)

(A) Between Popes Peak and Mt. Niblock; S. W. of Lake Agnes. A. J. xxxii, 74; C. A. J. ix, 140; Scribner's Mag. June, 1903, 646.

1901 first ascent by E. Whymper and guides.

Route 1. From Lake Louise via trail to Lake Agnes; thence via scree and broken rock to Whyte-Niblock saddle. Turn S. and follow arête to base of peak; cross a narrow couloir and ascend short slanting chimney to summit rocks.

Ascent from Lake Louise, 5 h.

Route 2. Traverse; summit as described. Descend S. E. face between main peak and subsidiary summit to S., a couloir leading down to Victoria glacier trail. (1907 first ascent of S. summit by J. W. A. Hickson, *E. Feuz, Jr.*, from Victoria glacier, with traverse of main peak.)

Total time from Chateau Lake Louise, 8 h.

Mt. Yukness. (9342) (15)

(P) Culminates W. arête of Ringrose Peak; S. of Lake Oesa. A. J. xviii, 226; C. A. J., ii; 2, 27, xv, 137.

1918 first ascent by the Boundary Commission.

May be ascended without difficulty from Lake O'Hara via the W. face.

SECTION X

OTTERTAIL GROUP

Lying entirely in British Columbia (P), the group is bounded by Ottertail, Kicking Horse and Beaverfoot rivers. It contains two snowfields, one at the head of Ice River valley on the shoulders of Mt. Hanbury, about five square miles in area; the other, the Washmawapta, E. of Moose creek and Helmet Mt., about eight square miles. The highest summit is Mt. Goodsir (11676; S. tower).

The peaks are reached from Kicking Horse river by way of Ottertail river on the N., or via Beaverfoot and Ice River valleys on the S. There is also a good trail down McArthur creek, a source of Ottertail river, connecting with trails from Lake O'Hara and Vermilion pass.

Map reference: Sheet 142.A, Geological Survey (1915).

Mt. Chancellor. (10761) (R. M. Park, 1923)

(P) E. of Leanchoil station, C.P.R.; between Beaverfoot and Ice River valleys. App ix, 376; x, 1; A. J. xx, 541; O., 260.

1901 first ascent by J. Outram, J. H. Scattergood, G. M. Weed, *C. Häsler.*

Camp at timberline on S. W. slopes (6500'). Ascend scree and short cliffs to a deep snow-filled couloir leading to depression in W. arête just below summit. The jagged S. arête is then reached and followed to the top, traversing to avoid small gendarmes and stretches of ice which often make the last part difficult.

Ascent from timberline, 6 h.; descent, 5 h.

Mt. Ennis. (10277) (R. M. Park, 1923)

(P) N. W. of Mt. Hanbury; one and three-eighths mi. E. of Mt. Vaux.

Foster Peak. (10505) (R. M. Park, 1923)

(P) Three mi. W. of Vermilion river and Banff-Windermere road; N. of lake at head of Floe creek.

Mt. Goodsir. (S., 11680; N., 11565) (R. M. Park, 1923)

(P) Highest peak of massif between Ottertail and Ice River valleys.

S. Tower: App. x, 285; C. A. J. i, 1, 72; vii, 41; O., 248, 266.

1903 first ascent by C. E. Fay, H. C. Parker, *C. Häsler, C. Kaufmann.*

Camp at 7000′ in upper Zinc Gulch and ascend the basal slopes of S. tower over grass and scree. Ascend broken rock of S. W. buttress toward a conspicuous snow shoulder to E. and via its narrow ridge to the base of a steep cliff (10800′; 5 h.). The cliff is ascended for 100′ (poor holds) and the narrow arête followed for 500′ to the summit, heavily corniced on Ottertail side.

Ascent from camp, 8 h.; descent, 6 h.

The peak was traversed in 1915 by J. W. A. Hickson, *E. Feuz, Jr.*, following the above route in ascending; the descent to the N. proved much more difficult and required a night out. App. xix, 236; C. A. J. vii, 41.

N. Tower: C. A. J. ii, 2, 61.

1909 first ascent by (A. Eggers), J. P. Forde, P. D. McTavish, *E. Feuz.*

From camp in Ice River valley (5100′) near base of N. tower gain S. W. ridge at 6800′ as soon as possible and follow it until forced to leave on account of perpendicular bluffs. Traverse a long rock slide on S. side of peak to reach another ridge immediately overhanging the valley between the N. and S. towers. Follow this arête to base of N. tower at 10300′; traverse along ledges covered with scree and snow, ascending W. face close to S. arête. On arrival at a snow-filled couloir, ascend rocks to right (good holds) for 350′, then cross to avoid a difficult cliff and continue ascent close to the couloir up steep ledges to summit snow.

Ascent from camp, 9 h.

Hanbury Peak. (10267) (R. M. Park, 1923)
(P) E. of Mt. Vaux at head of Ice River valley. Alp. Amer., 19.
[In 1902 the col (Ice pass) immediately E. of Mt. Hanbury was crossed by M. Goddard, W. S. Richardson, *R. Hemmer*, from the head of Ice river down the difficult ice-fall to Haskins creek. From camp in Ice River valley to Field, 30 h. 30 m. A. J. xxv, 524.]

Helmet Mt. (10297) (R. M. Park, 1923)
(P) S. E. of Mt. Sharp; W. margin of Washmawapta snowfield; head of Moose creek. App. ix, 299; TSB, 1906-7, 219; Alp. Amer., 8.
1906 first ascent by the Topographical Survey.

Mt. Hurd. (9275) (Yoho Park, 1921)
(P) N. W. outpost of Ottertail group; N. W. of Mt. Vaux. O., 243; TSB, 1905-6, 100.

Limestone Peak. (9442) (Yoho Park, 1921)
(P) E. of Helmet Mt.; E. margin of Washmawapta snowfield.

Mt. Mollison. (9677) (Prel. Map R. M. Park, 1922)
(P) E. of junction of Ice and Beaverfoot rivers. App. ix, 289.
1900 first ascent by J. H. Scattergood, *J. Muller*, *C. Hasler*
From camp at Ice river-Beaverfoot junction make for S. E. arête by traversing W. and S.; ascend arête toward N. and climb steep W. face to summit.
Ascent from camp, 5 h. 30 m.

Mt. Oke. (9581) (15)
(P) W. of Prospectors valley; E. of Misko creek-Ottertail junction. On N. lies Misko pass (Misko creek to Prospectors valley); on S. lies Ottertail pass (Ottertail-Vermilion river).
1904 first ascent by the Topographical Survey.

Mt. Sharp. (10004) (15)
(P) E. of Mt. Goodsir at head of Goodsir creek; head of Moose creek. App. ix, 299; TSB, 1906-7, 219.
1906 first ascent by the Topographical Survey.

Mt. Vaux. (10891) (Palliser; Yoho Park, 1923)

(P) S. E. of Mt. Hurd; between the latter and Mt. Hanbury. App. ix, 376; x, 6; C. A. J. i, 1, 74; O., 245.

1901 first ascent by C. E. Fay, J. Outram, J. H. Scattergood, *C. Häsler.*

From Ottertail river, camp at sources of Haskins creek, E. of Mt. Hurd. Ascend over easy rock (1 h.) and steep snow slopes to Hurd-Vaux col (Hurd pass; 50 m.). Thence S. along broken arête (1 h.) to narrow col at base of a snow dome below final peak. Steep slopes are ascended (800′) to the snow dome (9950′). Cross to névé sweeping S. E. and circle large crevasses by bearing well to left and reaching narrow summit ridge. In descending, on arriving at dip between final peak and snow dome, the glacier to S. E. may be followed over easy snow to cirque at head of Ice River valley. Steeper slopes and rocky ledges are descended and the valley reached.

Ascent from camp, 7 h. 20 m.; traverse, 12 h. 30 m.

Mt. Verendrye. (10125) (R. M. Park, 1923)

(P) S. E. peak of Vermilion range; W. of and in the curve of Vermilion river, opposite mouth of Simpson river; three mi. W. of Banff-Windermere road.

1922 first ascent by the Topographical Survey.

Mt. Wardle. (9218)

(P) Lat. 50° 57′ 30″, Long. 116° 01′.

1922 first ascent by the Topographical Survey.

Zinc Mt. (9810) (R. M. Park, 1923)

(P) S. of Mt. Goodsir; head of Zinc valley; N. W. of Moose creek.

1906 first ascent by the Topographical Survey.

Part Two

KICKING HORSE PASS TO YELLOWHEAD PASS

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PART TWO

SECTION XI

Kicking Horse Pass to Howse Pass

YOHO-WAPUTIK GROUP

The group forms an isosceles triangle with its apex to the N.; it is bounded on W. and S. by Blaeberry, Amiskwi and Kicking Horse rivers (Columbia tributaries), and on E. by Bow and Mistaya rivers (S. and N. Saskatchewan tributaries). The N. section of the W. boundary is formed by Howse river, also a Saskatchewan source, the apex of the group projecting into the Howse-Mistaya angle.

The irregular but connected icefields on and near the Divide in the central portion of the group cover an area of more than 45 square miles. Balfour pass (8200'; Yoho valley to Hector lake) is the division point between the Wapta icefield (25-30 sq. mi.) and the Waputik icefield (20 sq. mi.), the latter being the northern. On the Divide, Howse Peak (10800) and Mt. Balfour (10741) are the highest peaks. W. of the Divide and parallel to it, Yoho valley splits the group, and from it the southern peaks are accessible (permanent camps at Emerald lake, Takakkaw falls, Twin falls). Yoho valley was first explored in 1897 by Jean Habel (App. viii, 320, 327; ix, 20).

A noteworthy characteristic of this group is its unbroken E. escarpment, rising above a series of magnificent lakes (Hector, Bow, Peyto, Mistaya, Chephren, upper and lower

Wildfowl) in the terminal branches of the Saskatchewan river.

To reach the northern peaks, outfits may be taken (preferably) from Lake Louise. Kicking Horse pass (5320'), now traversed by the main line of the C.P.R., was discovered by Dr. Hector, of the Palliser expedition, in 1858. Howse pass (5020') was discovered by David Thompson, of the North-West Company, in 1807, and used as a route to the Columbia until the opening of Athabaska pass, four years later; it was examined in 1871 by Walter Moberly, for the C.P.R. Bow pass (6878'), on the eastern side of the group, separates Bow from Mistaya river, draining respectively into the S. and the N. Saskatchewan and following widely divergent courses before rejoining.

Map reference: Yoho Park (1921).

Aiguille Peak. (9840) (17)

(A-P) One mi. S. E. of Howse Peak; S. of Chephren lake. ABC, 13.

Aries Peak. (9900) (17)

(A-P) Between Ebon and Stairway Peaks; two mi. W. of Mistaya lake; S. W. of Cirque lake. ABC, 2.

Mt. Ayesha. (10036) (17)

(P) Two mi. N. of Mt. Collie; two mi. S. of Mt. Baker. C. A. J. i, 1, 151.

Mt. Baker. (10451) (17)

(A-P) Two mi. N. of Mt. Ayesha; between Baker and Peyto glaciers, the latter flowing N. E. and forming main source of Mistaya river. App. ix, 21; O., 222.

1923 first ascent by W. D. Wilcox, *R. Aemmer.*

From camp at Bow pass, via Peyto glacier and long snow slopes. The peak was traversed.

Ascent 8 h.; descent 5 h. 30 m.

Mt. Balfour. (10741) (16)

(A-P) S. of Balfour pass (Yoho valley to Hector lake) and Mt. Olive; N. of Mt. Lilliput; head of Balfour glacier; second elevation of Yoho-Waputik group. ABC 8; App.

viii, 328; ix, 20, 92; x, 87; C. A. J. i, 1, 152; ii, 2, 148; C., 34; O., 230, 283; Sierra, ii, 5, 263.

1898 first ascent by C. L. Noyes, C. S. Thompson, G. M. Weed.

Route 1. From camp near Hector lake, ascend scree and rock on W. side of valley, past Lakes Margaret and Turquoise, to foot of Balfour glacier (4 h.). Crevasses are passed to névé above, and the S. E. arête followed over broken rock and steep snow to the summit (4 h.).

Route 2. From Yoho valley, via N. margin of Daly glacier and snowfields to base of S. E. arête. Thence as in Route 1.

Ascent from Takakkaw camp, 5-6 h.

Route 3. From Twin Falls chalet via Yoho glacier and Balfour pass, whence the N. snow slopes may be ascended.

[In 1901 Balfour pass (8250′) was crossed by J. Outram, C. *Kaufmann*, J. Pollinger. From head of Yoho valley Diableret glacier was ascended to the pass (2 h. 30 m.) and descent made to Hector lake, trail being followed to Lake Louise station. Total time 12 h. App. x, 87.]

Mt. Barbette. (10080) (17)

(A-P) Between Mt. Mistaya and Mt. Breaker; three mi. W. of Peyto lake. ABC, 11.

Mt. Bosworth. (9093) (16)

(A-P) N. W. buttress of Kicking Horse pass. ABC, 8.

1913 first ascent by the Boundary Commission.

Bow Peak. (9194) (16)

(A) In N. W. angle between Bow river and Hector lake. O., 290; W., 154.

1896 first ascent by R. L. Barrett, W. D. Wilcox.

Mt. Breaker. (10069) (17)

(A-P) S. of Ebon Peak; N. of Mt. Barbette; head of Capricorn glacier; S. W. of Mistaya lake. ABC, 12.

1917 first ascent by the Boundary Commission.

Mt. Burgess. (8473) (16)

(P) W. buttress of Burgess pass (Field-Emerald lake). C. A. J. i, 1, 53, 174; O., 181; RDI, 1893, 76.

1892 first ascent by J. J. McArthur.

From Burgess pass over broken rock on N. E.; laborious but not difficult.

Mt. Carnarvon. (9974) (Yoho Park, 1921)

(P) S. of Mt. Marpole; between Emerald lake and Kiwetinok creek. C. A. J. i, 1, 53; O., 201, 206.

1904 first ascent by the Topographical Survey.

May be reached from Emerald lake by way of the Carnarvon-Marpole saddle and N. ridge.

Chephren Peak *(Pyramid).* (E. 10700; W. 10500) (17)

(A) Two mi. N. of Howse Peak; between Mistaya and Howse rivers; W. of Chephren lake. C. A. J. iii, 4; vi, 94; xii, 184; O., 299, 325.

E. peak: 1913 first ascent by J. W. A. Hickson, *E. Feuz, Jr.*

From camp on Mistaya river (Wildfowl lake) through timber to Chephren lake on S. side of peak. Thence via shale slopes and steep rocks to saddle between lower W. peak (White Pyramid) and higher E. summit. From this point the higher peak is ascended by its N. arête (40 m.).

Ascent 7 h.; descent 6 h.

Mt. Collie. (10325) (Yoho Park, 1921)

(P) Between Mt. Ayesha and Mt. des Poilus (Habel). App. ix, 22, 91; x, 80; C. A. J. i, 1, 175; iv, 133; C., 126; O., 221; RDI, 1905; Scribner's Mag., June, 1903, 656.

1901 first ascent by J. Outram, E. Whymper, *C. Kaufmann, C. Klucker, J. Pollinger.*

Route 1. From Twin Falls chalet, via Habel or Yoho glaciers and centre of the S. face, the crest of the S. arête being gained about 400′ below the summit. (Large crevasses may be avoided by keeping to the W. side of the névé; a large schrund is sometimes found below the S. arête.)

Ascent 5-6 h.

Route 2. 1926, M. M. Strumia, J. M. Thorington, *E. Feuz, Jr.* From Bow lake ascend E. lateral moraine of Bow glacier; cross and reach Wapta névé at base of Portal Peak. Cross Gordon-Rhondda snow pass and round head of Yoho glacier to S. E. rocks of Mt. Collie. Scree and chimneys,

the final of which is 50', to crest of ridge which is crossed to snow. The E. snow arête is followed from its lowest point to the summit. A. J. xxxix, 70.

Bow lake to Gordon-Rhondda pass 3 h. 30 m.; pass to summit 3 h. Descent via Route 1 to Takakkaw camp 6 h. 30 m.

Mt. Daly. (10342) (16)

(A-P) Between Yoho valley and head of Bath creek. ABC, 8; App ix, 94; x, 374; C. A. J. ii, 2, 146; D. Ö. A. V. xxxvi, 151.

1903 first ascent by J. H. Batcheller, C. E. Fay, E. Tewes, *C. Bohren, C. Häsler.*

Route 1. From Yoho valley via Daly glacier. Cross N. of Mt. Niles and ascend snowfield to rocks of final peak, which may be easily reached over either the N. or S. arête.

Route 2. From Sherbrooke valley via Niles pass (W. of Mt. Niles) to Daly glacier; thence as in Route 1.

Ascent 6 h.

Ebon Peak. (9600) (17)

(A-P) N. of Mt. Breaker; S. of Aries Peak; one mi. W. of Capricorn lake. ABC, 12.

Mt. Gordon *(Aberdeen).* (10346) (16)

(P) E. wall of Yoho glacier; W. buttress of Vulture col (Bow glacier to Hector lake). ABC, 10; A. J. xix, 109; xxxv, 198; App. viii, 325, 394; ix, 26; C., 29; O., 282; T., 26.

1897 first ascent by G. P. Baker, J. N. Collie, H. B. Dixon, C. E. Fay, A. Michael, C. L. Noyes, H. C. Parker, C. S. Thompson, *P. Sarbach.*

Route 1. From Bow lake via E. lateral moraine of Bow glacier. Cross ice and gain Wapta névé at base of Portal Peak. Traverse snowfield to Vulture col and ascend N. E. arête to W. and highest point.

Route 2. From Twin Falls chalet (Yoho valley) via Balfour pass and Vulture col. To summit as in Route 1.

Traverse from Bow lake to Takakkaw camp 12-14 h.

Howse Peak. (10800) (17)

(A-P) E. buttress of Howse pass (North Saskatchewan to Blaeberry river); highest summit of Waputik group; S.

of Chephren Peak. ABC, 13; A. J. xxi, 373; C. A. J. vi, 94; C., 286; G. J. xxi, 493; p., 316.

1902 first ascent by J. N. Collie, H. E. M. Stutfield, G. M. Weed, H. Woolley, *H. Kaufmann.*

From camp on Howse river, below Howse pass, ascend through burnt timber to W. arête (2 h.). Two precipitous rock faces intersect the arête; the first is passed without difficulty and the second avoided by descending toward the valley and remounting further on. Remainder of climb is on snow of W. face, with few crevasses; summit heavily corniced on W.

Ascent 8 h.

Isolated Peak. (9234) (Yoho Park, 1921)

(P) S. margin of Habel glacier; E. of Mt. McArthur. App. x, 85; C. A. J. iv, 133; O, 208; Scribner's Mag., June, 1903, 655.

1901 first ascent by J. Outram, E. Whymper, *J. Bossoney, C. Kaufmann, C. Klucker, J. Pollinger.*

From camp in Little Yoho valley, via scree and dry glacier W. of Whaleback to snow slopes and shale, leading to rocky summit. The W. ridge offers the easiest route.

Ascent 2 h. 30 m.

Mt. Kaufmann. (S. 10200; N. 10150) (18)

(A) Immediately S. of Mt. Sarbach; separated from Mt. Chephren by three lower unnamed peaks. The peaks of Mt. Kaufmann are almost identical in outline and are rocky pinnacles as seen from Howse river. From Mistaya river, N. Kaufmann sets back from the valley and presents a rock face; S. Kaufmann shows considerable snow on N. E. side.

S. peak: 1927 first ascent by D. Duncan, *Ern. Feuz.*

Via W. slopes from Howse river to saddle between N. and S. peaks, and up N. ridge for 900' of interesting climbing.

Ascent 5 h. 30 m.

Mt. Kerr. (9394) (Yoho Park, 1921)

(P) Between Little Yoho valley and Kiwetinok creek; S. buttress of Kiwetinok pass (Little Yoho to Amiskwi valley). Scribner's Mag., June, 1903, 655.

1901 first ascent by E. Whymper and guides.

Kiwetinok Peak. (9522) (Yoho Park, 1921)
(P) Between Little Yoho valley and Kiwetinok creek; N buttress of Kiwetinok pass (Little Yoho to Amiskwi valley). App. x, 85; O., 201.

1901 first ascent by J. Outram, *C. Kaufmann, J. Pollinger.*

Route 1. From Little Yoho valley ascend to Kiwetinok pass (8000') whence a direct route may be taken via E. snow slopes (bergschrund) leading to long N. E. arête and summit rocks.

Ascent 4 h.

Route 2. The ascent may be made by following N. arête from summit of Mt. McArthur (1 h.).

Mt. Lilliput. (9200) (16)
(A-P) Two mi. S. E. of Mt. Balfour. ABC, 8.

Mt. Marpole. (9832) (Yoho Park, 1922)
(P) S. W. buttress of Emerald pass (Emerald lake to Kiwetinok creek); S. W. of Mt. President. App. xix, 232; C. A. J. i, 1, 53, 115, 175; Scribner's Mag., June, 1903, 655.

1901 first ascent by E. Whymper and guides.

From camp in Little Yoho valley, via the glacier between Mts. Marpole and President. Snow slopes and broken rock of W. arête lead to summit. The E. arête, direct from Emerald pass is interesting but difficult.

[**Amgadamo** (9537'); culminates W. ridge of Mt. Marpole: 1906 first ascent by A. Dunn, A. M. Gordon, A. O. McCrae, *E. Feuz, Jr., G. Feuz.* From Yoho pass by way of the Carnarvon-Marpole col, whence the E. ridge of the objective point is reached and followed over broken rock. A traverse may be made of the main peak of Mt. Marpole, with descent to glacier between Mts. Marpole and President (Emerald pass), whence Little Yoho valley or Emerald lake may be reached. C. A. J. i, 1, 115, 175.]

Mt. McArthur *(Signal 18).* (9892) (Yoho Park, 1922)
(P) One mi. W. of Isolated Peak; S. W. margin of Habel glacier. Alp. Amer. 14; C. A. J. ii, 2, 150; O., 202; RDI, 1891.

1891 first ascent by W. S. Drewry.

Route 1. From Twin Falls chalet by way of Habel glacier and N. arête, which is accessible in many places and followed on its W. side to summit.

Ascent 5 h.

Route 2. From Little Yoho valley traverse Kiwetinok Peak (which see); ascend Mt. McArthur by way of the S. arête (1 h.).

Michael Peak *(Parson).* (8844) (16)

(P) N. W. buttress of Yoho pass (6030'; Emerald lake to Yoho valley); E. of Mt. Vice-President. ABC, 12; O., 196.

1900 first ascent by J. Outram, *C. Kaufmann.*

From Yoho pass.

[**Point ?9500**; between present Michael Peak and Angle Peak (see under Mt. Vice-President): 1900 first ascent by A. Michael, *C. Hasler.* To the little alp N. E. of Emerald lake, whence glacier and névé are ascended in a N. E. direction to the rocky summit. App. ix, 371; x, 86. 1901, J. Outram, *C. Kaufmann, J. Pollinger.* This summit was reached by following the arête from Angle Peak. O., 208.]

Midway Peak. (9570) (17)

(A-P) S. of Mt. Synge; N. of Stairway Peak; one mi. W. of Cirque lake. ABC, 12.

Mt. Mistaya. (10100) (17)

(A-P) S. E. of Mt. Barbette; N. of Trapper Peak, head of Delta creek. ABC, 11.

Mt. Niles. (9752) (16)

(P) S. W. of Mt. Daly; at head of Sherbrooke creek. App. ix, 96; O., 284.

1898 first ascent by C. E. Fay, R. Campbell.

The Daly névé may be reached from Takakkaw camp (Yoho valley) or from camp in Sherbrooke valley via Niles pass on the W. of the mountain. The peak is accessible via snow of W. slopes.

Ascent 4 h.

Mt. Olive. (10270) (16)

(A-P) N. E. buttress of Vulture col; N. W. of Balfour pass (Yoho valley to Hector lake). ABC, 10; C. A. J. xvi, 245; O., 281.

1927 first ascent by M. Cropley, G. A. Gambs, N. L. Goodrich, L. Grassi.

From Twin Falls chalet via Yoho glacier, Balfour pass, Vulture glacier and broken rock of the E. arête of the S. peak, whence the slightly higher N. peak is reached. An easy descent may be made on W. to Vulture col.

Ascent, from Yoho glacier, 5 h.

Mt. Patterson. (10490) (17)

(A-P) W. of Mistaya river, between Delta creek and Mistaya lake; N. E. of Mt. Barbette. ABC, 12; App. xvi, 153.

1924 first ascent by F. V. Field, W. O. Field, *E. Feuz, Jr.*

From camp at head of Mistaya lake, via snowfield W. of mountain, whence an easy route leads to central and highest point.

Ascent 6 h.

Peyto Peak. (9805) (17)

(A) W. buttress of Peyto glacier; one mi. S. of Caldron lake. ABC, 11.

Mt. Des Poilus *(Habel)* (10371) (Yoho Park, 1921)

(P) W. escarpment of Wapta icefield, between Mts. McArthur and Collie. App. x, 86; C. A. J. ii, 2, 150; iv, 133; x, 102; O., 210; Scribner's Mag., June, 1903, 658.

1901 first ascent by J. Outram, E. Whymper, C. *Kaufmann, C. Klucker, J. Pollinger.*

Route 1. From Twin Falls chalet via Habel glacier and Wapta névé, to bergschrund and steep slopes leading to a col in the S. arête, from which the summit (500′ higher) may be reached.

Ascent 5 h. 30 m.

Route 2. From Little Yoho valley an ascent of 2000′ leads to the rocky col N. E. of Isolated Peak, and a descent of 300′ on the far side to Habel glacier. Thence as in Route 1.

Ascent 6 h. 30 m.

Portal Peak. (9552) (17)

(A) N. buttress of Bow glacier; S. E. of Mt. Thompson. ABC, 11; C. A. J. iii, 165.

1926 first ascent by D. Duncan, L. Hudson.

From Bow lake via S. margin of Bow glacier; cross above lower icefall and reach névé at S. W. angle of Portal Peak, whence summit may be easily reached over scree slopes.

Ascent 4 h.

Mt. President *(Emerald).* (10297) (Yoho Park, 1921)

(P) S. W. of Mt. Vice-President and separated from it by President pass (Emerald lake to Little Yoho valley). App. ix, 371; x, 86; C. A. J., i, 1, 52; O., 204; Scribner's Mag., June, 1903, 656.

1901 first ascent by J. Outram, *C. Kaufmann, J. Pollinger.*

Route 1. From camp in Little Yoho valley (6500′), via glacier and névé leading to Emerald pass (9800′) and the N. W. snow slopes leading to summit, heavily corniced toward E.

Ascent 5 h. 30 m.; descent 1 h. 30 m.

Route 2. From summit of Mt. Vice-President (which see) descend 200′ of steep snow to President pass, a similar ascent on opposite side leading to Mt. President over the N. E. arête (30 m.).

Mt. Rhondda. (10025) (17)

(A-P) S. E. of Mt. Baker; N. W. of St. Nicholas Peak; head of Bow glacier. ABC, 11; A. J. xxxv, 199; C. A. J. xiv, 8.

1923 first ascent by A. Geoffrion, J. W. A. Hickson, *E. Feuz, Jr.*

From Bow pass via Peyto glacier to snow pass between Mts. Baker and Rhondda, whence the ascent is over snow and rock, completed by a traverse of a long and, towards the end, sharp rock ridge. Descent was made on E. side, mainly over snow.

Ascent from camp 7 h.; descent 5 h.

St. Nicholas Peak. (9616) (17)

(A-P) N. W. of Mt. Olive; head of Bow glacier. T., 25, 26.

Mt. Sarbach. (10273) (Sect. 213)

(A) N. outpost of Waputik group; in angle between Mistaya and Howse rivers; N. of Mt. Kaufmann. ABC, 13, 51; A. J. xviii, 549; G. J. xiii, 342; C., 47; O., 302.

1897 first ascent by G. P. Baker, J. N. Collie, *P. Sarbach.*

From camp at mouth of Mistaya river ascend 1000' through forest; then up a steep gully in the limestone escarpment, leading to the crest of the W. shoulder. Thence over steep scree to foot of final peak. Rock is loose and crumbling; summit ridge narrow and composed of hard limestone.

Stairway Peak. (9840) (17)

(A-P) Between Midway and Aries Peaks; one mi. S. E. of Cirque lake. ABC, 12.

Mt. Synge. (9700) (17)

(A-P) S. E. of Howse Peak; between Aiguille and Midway Peaks; one mi. W. of Cirque lake. ABC, 13.

Mt. Thompson. (10119) (17)

(A) Between Peyto and Bow glaciers; E. of Mt. Baker; N. W. of and adjacent to Portal Peak. App. ix, 82; C., 141; G. J. xiii, 352.

1898 first ascent by J. N. Collie, H. E. M. Stutfield, H. Woolley.

From Bow lake ascend E. lateral moraine of Bow glacier; cross above lower icefall and gain Wapta névé at base of Portal Peak; round base of latter and ascend Mt. Thompson over loose rocks and snow.

Ascent 5 h.

Trapper Peak. (9790) (17)

(A-P) One mi. N. of Mt. Baker; head of Peyto glacier.

Trolltinder Mtn. (9670) (16)

(P) Culminates S. W. arête of Mt. Balfour; S. E. of Yoho glacier. App. viii, 334; x, 87; C. A. J. ii, 2, 221; iv, 133; O., 226; Scribner's Mag., June, 1903, 658.

1901 first ascent by J. Outram, E. Whymper, *C. Kaufmann, C. Klucker, J. Pollinger.*

From Twin Falls chalet or Takakkaw camp, via Fairy creek. Ascend S. bank, crossing higher up to reach S. end of main ridge; thence over scree to base of final tower, the last 50' being over steep slabs and narrow ledges.

Ascent 4 h. 30 m.

Unnamed. (10000) (18)

(A) Immediately S. of Mt. Kaufmann; N. and highest of three unnamed peaks between Mt. Kaufmann and Chepren Peak. App. xvi, 153.

1924 first ascent by F. V. Field, W. O. Field, *E. Feuz, Jr.*

From camp on Howse river the peak was reached by the W. scree and rock slopes, and traversed from N. to S.; last 500' difficult.

Ascent 7 h.; total 13 h.

Unnamed. (9100) (17)

(A) E. retaining wall of Peyto glacier; S. W. buttress of Bow pass (Bow river to Mistaya river); N. E. of Mt. Thompson. G. J. xiii, 342.

1897 first ascent by G. P. Baker, J. N. Collie, *P. Sarbach.*

From Bow pass.

Mt. Vice-President. (10059) (Yoho Park, 1921)

(P) N. E. of Mt. President; S. wall of Little Yoho valley; an eminence on the long E. arête is known as Angle Peak (see below). App. x, 80; C. A. J. i, 1, 52, 171; O., 207; Scribner's Mag., June, 1903, 656.

1901 first ascent by J. Outram, *C. Kaufmann, J. Pollinger.*

Route 1. From Yoho pass cross shoulder extending S. from Michael Peak (which see). Traverse rock slides and ascend snow slopes to arête between Michael Peak and Mt Vice-President, following this over Angle Peak and crossing level snowfield to summit one mi. further on.

Ascent from Yoho pass 5 h.

Route 2. From Little Yoho valley via centre and right bank of glacier below N. side of President pass. Ascend spur protruding S. W. and gain summit over rock and snow.

Ascent 3 h. 30 m.

[**Angle Peak** (9800): 1901 first ascent by J. Outram, *C. Kaufmann, J. Pollinger.* The E. summit of Mt. Vice-President, situated almost one mi. E. of the highest point. It was attained by following the intervening arête and climbing steep snow slopes of its N. W. face. A traverse was then made to the lower point, reached in 1900 by A. Michael, *C. Häsler* (see note under Michael Peak). C. A. J. i, 171; O., 208.]

Mt. Wapta. (9116) (16)

(P) Between Yoho river and Emerald lake; between Yoho and Burgess passes. App. x, 65; C. A. J. i, 2, 174; xi, 217; O., 178.

1901 first ascent by J. Outram, J. H. Scattergood, *C. Bohren.*

Route 1. Direct from summit of Yoho pass; no difficulty.

Route 2. From Burgess pass or Yoho pass a large snow-filled couloir in the S. W. face is reached and ascended for 200′; thence traverse ledges to E. pass the foot of a chimney and around a buttress to a broad dry couloir running to summit of cliff-belt. Thence over shale to second line of cliff which is surmounted by ledges leading to E. extremity of final ridge.

From Field or Emerald lake 5 h.; from base of S. couloir 2 h.

Route 3. 1906, Miss H. Tuzo, *C. Kaufmann.* From Yoho pass over the long scree slopes to snow banks at foot of N. E. cliffs. Working up from snow through a narrow gully to foot of a wide chimney near N. E. angle of the cliff, turn left and ascend over steep rock with small holds. Traverse the face (left) while working upward, toward the E. outline of cliffs, for three-quarters of the distance to the summit crest. (The general line of ascent is from the lower right to the upper left of the face.) The slope lessens, leading to a level bench at the foot of several steep chimneys. Ascend the chimney on the right; 50′ of good rock leads to snow cornice whence summit is easily reached.

Ascent from foot of N. E. face 2 h. 30 m.

Yoho Peak. (9056) (Yoho Park, 1921)

(P) W. buttress of Yoho glacier. App. x, 87; O., 220.

1901 first ascent by R. Campbell, H. W. Dubois, A. Palmer.

From Twin Falls chalet the mountain may be easily reached by way of Yoho glacier and the broken rock of the N. face; or via cliffs N. of Twin Falls to narrow S. E. arête which is followed to the snow-dome summit.

Twin Falls to first minor summit 1 h. 30 m.; to highest point 50 m.

SECTION XII

PIPESTONE GROUP

This area is bounded on the W. by Bow river, from Bow pass to Elko station, C.P.R.; on the E. by Baker creek (Bow river) and Douglas creek (Red Deer river); and on the N. by the passes leading to Clearwater river. In general, it includes the peaks of Pipestone river drainage, all of them on the Alberta (A) slope. Mt. St. Bride (10875) and Mt. Hector (11135) are the highest peaks. Bow and Pipestone valleys form convenient approaches for outfits from Lake Louise.

Anthozoan Mtn. *(Brachiopod).* (9060) (R. M. Park, 1923)
(A) S. of Baker lake. C. A. J. iv, 112.
1911 first ascent by J. F. Porter and party.
From Baker lake via scree and broken rock of N. W. face.

Cataract Peak. (10935) (R. M. Park, 1923)
(A) W. of Mt. McConnell; head of Pipestone river.

Cirque Peak. (9768) (R. M. Park, 1923)
(A) N. E. of Bow lake; N. W. buttress of Dolomite pass (Bow river to Siffleur river).
1903 first ascent by J. Simpson, A. O. Wheeler.
A shale and rock climb from Bow pass.

Cyclone Mt. (10006) (R. M. Park, 1923)
(A) S. W. of Mt. Drummond; N. E. of pass between Little Pipestone creek and Red Deer river.
1910 first ascent by J. W. A. Hickson, *E. Feuz, E. Feuz, Jr.*

Dolomite Peak. (9828) (R. M. Park, 1923)

(A) E. of Bow lake; S. E. buttress of Dolomite pass (Bow river to Dolomite creek). App. ix, 90.

Mt. Douglas *(Black Douglas).* (10615) (R. M. Park, 1923)

(A) N. of Mt. St. Bride; S. W. of Douglas lake. C. A. J. i, 2, 318; iv, 143; vii, 58; viii, 136.

1907 first ascent by L. M. Earle, *E. Feuz, G. Feuz.*

From Lake Louise via Pipestone and Little Pipestone valleys, cross pass to head of Red Deer river and camp in side valley S. W. of the mountain. Ascend S. W. face over loose but not difficult rock and gain S. arête which is followed to summit.

Ascent 5 h. 30 m.

Mt. Drummond. (10300) (R. M. Park, 1923)

(A) N. E. of Cyclone Mt.; W. of Red Deer river.

Fossil Mt. (9665) (R. M. Park, 1923)

(A) N. E. of Pika Peak; N. of Douglas lake; head of Red Deer river. C. A. J. iv, 112.

1911 first ascent by J. F. Porter and party.

From Baker lake via broken rock of S. face.

Mt. Hector. (11135) (16)

(A) Highest peak in N. angle between Bow and Pipestone rivers; E. of Hector lake. App. viii, 1, 97; C. A. J. xiv, 9; O., 278.

1895 first ascent by P. S. Abbot, C. E. Fay, C. S. Thompson.

From camp on the Bow valley trail (E. side), two miles below Hector slide, opposite Hector lake; ascend slopes of W. face, N. of peak, to base of a shoulder separated by a large amphitheatre from the S. W. arête. Thence up the shoulder over broken rock, steep shale and snow patches to a nearly level snowfield, rising steeply toward the S. (40°) to summit ridge of broken rock.

Ascent 8 h.; descent 4 h.

[The ascent of Mt. Hector, made without guides by an American party, was the first ascent of a peak of the Canadian Rocky mountains above 11000′.]

Mt. McConnell. (10100) (R. M. Park, 1923)
(A) E. of Cataract Peak; four mi. N. of Mt. Drummond; W. angle between McConnell creek and Red Deer river. C. A. J. iii, 48.

Mt. Molar. (9924) (R. M. Park, 1923)
(A) N. angle between Molar creek and Pipestone river; N. E. of Mt. Hector. Visible from Lake Louise station. O., 281.
1912 first ascent by U. La Casse, S. Shellabarger.
The W. (highest) peak was ascended without difficulty from camp on Molar creek.

Oyster Peak. (9110) (R. M. Park, 1923)
(A) W. of Mt. Douglas; S. E. of pass between Little Pipestone creek and Red Deer river.

Pika Peak. (10015) (R. M. Park, 1923)
(A) Between Mt. Richardson and Ptarmigan Peak. C. A. J. iv, 142.
1911 first ascent by L. L. Delafield, L. M. Earle, *R. Aemmer, E. Feuz, Jr.*
From camp S. of Ptarmigan Peak, Mt. Richardson (which see) was traversed to the Richardson-Pika col and Pika Peak ascended over steep broken rock of W. arête (1 h. from col).

Ptarmigan Peak. (10070) (R. M. Park, 1923)
(A) E. of Pika Peak; N. W. of Ptarmigan lake and pass between heads of Corral creek and Red Deer river. App. xix, 233; C. A. J. iv, 114, 142.
1909 first ascent by J. W. A. Hickson, *L. Feuz, Jr.*
Route 1. Via couloir on S. E. side, and E. ridge.
Ascent from Ptarmigan lake, 3 h.
Route 2. 1911, J. F. Porter and party. Via S. face and E. arête; the last 100′ narrow, with loose rock.
Route 3. 1911, L. M. Earle, *R. Aemmer.* From the Richardson-Pika col, by a traverse (falling stones) of the N. faces of Pika Peak and the unnamed peak to its E. The route thence lies above the N. glacier to broken névé and steep snow slopes to the summit of Ptarmigan Peak.

Mt. Redoubt. (9520) (R. M. Park, 1923)

(A) S. of Ptarmigan lake; between Corral creek and Redoubt lake. C. A. J. iv, 111; vii, 126.

1915 first ascent by A. C. C. (names of party unknown).

From Ptarmigan lake via shale slopes and N. arête.

Mt. Richardson. (10125) (R. M. Park, 1923)

(A) Between Pika Peak and Pipestone river. C. A. J. iv, 142.

1911 first ascent by L. L. Delafield, L. M. Earle, *R. Aemmer, E. Feuz, Jr.*

Route 1. From camp in Ptarmigan valley via N. arête (3 h.; Earle, *Aemmer*).

Route 2. From Ptarmigan valley via S. (rock) arête (Delafield, *Feuz*).

Descent may be made via N. arête to Richardson-Pika col.

Mt. St. Bride *(White Douglas).* (10875) (R. M. Park, 1923)

(A) S. of Mt. Douglas; W. of Douglas creek; E. of pass between Baker creek and Red Deer river. App. xii, 227; xix, 234; C. A. J. i, 2, 319; iii, 40; iv, 143; viii, 136.

1910 first ascent by J. W. A. Hickson, *E. Feuz, E. Feuz, Jr.*

From Lake Louise via Ptarmigan valley (Corral creek) to camp E. of head of Baker creek (7200′). Ascend into rocky amphitheatre, crossing a rock wall at the lowest point to gain large flat névé S. W. of the peak. Traverse to pass at right and cross same; descend steep snow slope and traverse base of cliffs N. along the snow to a point below a notch, where there is a cave and a waterfall (falling stones). Gain the notch over snow, ice and rotten rock (varying difficulty). Cross the flat floor of the notch to its W. side and attack cliffs at the corner. A difficult 20′ chimney with an overhanging top requires a party of three for its negotiation. Bearing diagonally across the S. W. face above the cave brings one to another difficult 35′ chimney (fixed rope) slightly to the right, leading to a platform and easy rocks below a dangerous chimney with poor holds and loose rock (60′ fixed rope). When this is surmounted, the S. E. arête is followed to the flat top, 500′ above.

Ascent from camp 10 h.

Unnamed *(Second Pika).* (9765) (R. M. Park, 1923)

(A) Between Pika and Ptarmigan Peaks. C. A. J. iv, 142. 1911 first ascent by L. L. Delañeld, *E. Feuz, Jr.*

From the Richardson-Pika col, traverse scree on S. face of Pika Peak to col in E. arête between Pika Peak and the objective summit. Ascend a snow-filled couloir and the rock on its E. side to summit ridge. Traverse for short distance on N. side and regain arête several hundred feet W. of summit.

SECTION XIII

CLEARWATER GROUP

The Clearwater mountains comprise an irregular group between the eastern sources of the Siffleur and the headwaters of the Clearwater, lying generally E. and N. of Pipestone pass (8036'). The principal drainage of the group is carried by the main Clearwater river (which takes its rise near Clearwater pass, connecting with the upper Siffleur) by its westerly fork, Martin creek, and by its southerly fork, Roaring creek. The dominant peaks are situated in the basin of Martin creek: Mt. Willingdon (11044) and Recondite Peak (10990). The area has lately been mapped by the Topographical Survey and contains eighteen peaks between 10000' and 11044' in height, besides several sizeable glaciers.

Although the route through the Pipestone and Siffleur valleys across Pipestone pass is one of the oldest in the mountains, Dr. (afterward Sir James) Hector and Lord Southesk having traversed it in 1859, the highest peaks were not seen by them. It affords an important short cut between the basins of the South and North Saskatchewan rivers, serving as an alternative to that across Bow pass. In addition it permits of access through lateral passes into the watersheds of other streams, such as the Red Deer, Clearwater and Ram rivers.

As the Survey maps have not yet been issued and few of the peaks have been named, we designate them here merely by their elevations. The following were ascended by the Survey: 11044, 10825, 10567, 10422, 10382, 10067, 10055, 10044, 10030, 10021. Other high peaks measured but not ascended by the Survey are: 10990, 10802, 10784, 10760, 10760, 10550,

10200. The first and third of these have been subsequently ascended by others. Of lesser peaks, the Survey ascended eleven between 9400 and 9910 ft.

The upper Siffleur may be reached in two days from Lake Louise, all peaks of this area being situated on the Alberta (A) slope.

Map reference: Sketch Map showing Principal Peaks at Headwaters of the Clearwater and Siffleur Rivers (Harvard Mountaineering i, 11), by W. O. Field, 1927.

Devon Mtn. (9855) (Field, 1927)

(A) N. E. buttress of Pipestone pass (Pipestone river to Siffleur river).

Mt. Harris. (10825) (R. M. Park, 1923)

(A) W. angle between Martin creek and Clearwater river.

1919 first ascent by the Topographical Survey.

Mt. Malloch. (10067) (Field, 1927)

(A) In W. angle between Malloch creek and Clearwater river.

1919 first ascent by the Topographical Survey.

Unnamed *(Recondite).* (10990)

(A) Nine mi. N. of Pipestone pass. H. M. i, 2, 66.

1927 first ascent by H. Palmer, *Ern. Feuz.*

From camp in valley of S. E. branch of Siffleur by way of the S. W. arête. At a point 1500′ below the top a shoulder is turned by descending a chimney in the S. face. A sharp pinnacle, 700′ higher, necessitates an 80′ rope-off.

Ascent 7 h.; descent 3 h.

Unnamed *(Augusta).* (10784) (Field, 1927)

(A) One mi. S. E. of Recondite Peak; seven mi. N. of Pipestone pass. H. M. i, 2, 68.

1927 first ascent by R. H. Melcer, *Ern. Feuz.*

From camp in valley of S. E. branch of Siffleur by way of W. slopes and N. face.

Total time 9 h.

Unnamed. (10500) (Field, 1927)

(A) Five mi. N. W. of Pipestone pass, second elevation N. W. of Clearwater pass, the first being 10700'. H. M. i, 15.

1925 first ascent by W. O. Field, J. Hubbard, C. D. McCoy. From camp three mi. below Pipestone pass.

Unnamed. (10000) (Field, 1927)

(A) One mi. W. of Recondite Peak. H. M. i, 9.

1925 first ascent by W. O. Field, J. Hubbard, C. D. McCoy.

From camp in Sulfeur valley three mi. distant by way of S. E. branch of Sulfeur, ascending W. slopes.

Ascent 7 h.

Mt. Willingdon *(Clearwater).* (11044) (R. M. Park, 1923)

(A) Two mi. N. E. of Clearwater pass. H. M. i, 6.

1919 first ascent by the Topographical Survey.

From Clearwater pass proceed N. E. across snowfield to the west ridge of the peak, ascending steep ice slope. Follow slabby loose rocks to summit.

Ascent from pass 9 h.

[The second ascent was made by this route in 1925 by W. O. Field, J. Hubbard, C. D. McCoy in ignorance of the prior ascent by the Survey.]

SECTION XIV

VAN HORNE GROUP

Entirely on the British Columbia (P) slope, this group has no glaciers or snowfields of importance, and is seldom visited. It is bounded by the Kicking Horse, Amiskwi and Blaeberry river. Mt. Sealion (9650) is the highest summit.

Amiskwi Peak. (9259) (Yoho Park, 1921)
(P) W. of Amiskwi river, opposite Mt. McArthur; N. E. of Otto pass (Amiskwi to Blaeberry river).

Mt. Deville *(Russell)* (9494) (Yoho Park, 1921)
(P) N. W. of Mt. King; between Otterhead and Porcupine creeks. Alp. Amer., 14; RDI, 1891.
1891 first ascent by W. S. Drewry.

Mt. King. (9488) (Yoho Park, 1921)
(P) N. angle between Porcupine creek and Kicking Horse river; four mi. W. of Otterlail station. RDI, 1893, ii, 76; TSB, 1906-7, 78, 81.
1892 first ascent by J. J. McArthur.
Via Otterhead creek and tributary midway between two groups of cabins to a high basin; cross a shoulder to N. and descend on far side into upper basin of creek flowing from Mt. King to Otterhead creek. Thence follow steep arête to summit.

Ogre Peak. (9289) (Yoho Park, 1921)
(P) W. of Amiskwi river; N. W. of Twin lakes and Amiskwi Peak.

Red Indian Peak. (9279) (Top. R. M., 1903-7)
(P) E. of Blaeberry river; three mi. N. W. of Spike Peak.

Mt. Sealion. (9650) (Top. R. M., 1903-7)
(P) E. angle between Split creek and Blaeberry river; W. of Otto pass.

Spike Peak. (9573) (Top. R. M., 1903-7
(P) S. buttress of pass between Split and Otterhead creeks.

Mt. Laussedat. (10035) (Top. R. M., 1903-7)
(P) W. of Blaeberry river; ten mi. S. W. of Mt. Mummery. Alp. Amer., 19; TSB, 1907-8, 77.

1907 first ascent by P. A. Carson.

From camp on E. side of Blaeberry river, fifteen mi. from Moberly station. Cross river and ascend bridge N. W. toward peak. Bivouac at timberline and climb steep rocks and a snow couloir.

Ascent from bivouac 5 h.; descent 4 h.

[Included for convenience with but not a peak of the Van Horne Group.]

SECTION XV

Howse Pass to Bush Pass

FRESHFIELD GROUP

The group embraces the peaks on or near the Divide between Howse (5010′; N. Saskatchewan to Blaeberry river) and Bush (7800′; Forbes brook to Bush river) passes, an airline distance of ten miles but, as the Divide runs, about double this. Mt Barnard (10955) is the highest summit, the group being noteworthy for its snow and ice features.

The Freshfield icefield, a principal source of Howse river, occupies a basin eight miles long and two miles wide. Ice streams five and three miles long, respectively, unite in a tongue nearly a mile wide, which flows northeasterly for three miles more, the whole trunk stream being nine miles long. The system covers an area of twenty-two square miles.

The glacier was discovered in 1859 by Dr. Hector, of the Palliser expedition. The first climbing party was that of G. P. Baker, J. N. Collie, *P. Sarbach*, in 1897. The glacier is the only one of the N. Saskatchewan system whose movement has been measured (1922, H. Palmer; 1926, J. M. Thorington Smithsonian Miscellaneous Collections lxxvi, 11; lxxviii, 6).

The group may be approached (preferably) from Lake Louise, via Bow river, Bow pass, Mistaya and Howse rivers, in five days; or from Field by way of Amiskwi river and pass, Blaeberry river and Howse pass, in four days.

For climbs at the head of the icefield a bivouac should be made on the meadows below E. arête of Mt. Niverville. This point (7200′; wood and water) may be reached from the Freshfield tongue, over the glacier in two hours.

Mt. Alan Campbell. (9600) (19)

(P) Five mi. W. of Mt. Freshfield; W. of Campbell icefield.

Mt. Barlow. (10320) (18)

(A-P) Between head of Cairnes and Freshfield glaciers; one mi. E. of Mt. Helmer; one mi. S. W. of Mt. Low.

Mt. Barnard. (10955) (18)

(A-P) Highest summit of Freshfield group; half mi. S. of Mt. Bulyea; at heads of Waitabit glacier, Campbell and Freshfield icefields. ABC, 35; A. J. xxxiv, 394; C. A. J. xiii, 66; T., 35, 39.

1922 first ascent by H. Palmer, J. M. Thorington, *E. Feuz, Jr.*

From camp on meadows below E. arête of Mt. Niverville, via Freshfield snowfield, ascending through crevassed névé immediately E. of Mt. Walker. The base of the S. E. arête is reached and its crest attained over a small schrund and steep snow (150′). The arête is followed over two minor eminences to the summit.

Ascent 6 h. 45 m. Descent was made by the N. arête (snow) to a col whence the Freshfield névé was regained (45 m.) and crossed to Mt. Trutch (which see).

Mt. Bergne. (10420) (18)

(A) One mi. N. W. of Mt. Solitaire; one mi. S. E. of Mt. Skene; between Conway and Freshfield glaciers. ABC, 29, 39; A. J. xxxv, 116.

1918 first ascent by the Boundary Commission.

From camp in amphitheatre below Conway glacier, via W. moraine and upper snowfield.

Mt. Bulyea *(Burgener).* (10900) (18)

(A-P) N. W. of Mt. Barnard; S. E. of Prior Peak; S. margin of Pilkington-Walker névé. A. J. xxxiv, 390; C. A. J. iii, 8; T., 35.

1910 first ascent by J. E. C. Eaton, *H. Burgener.*

From snowfield between Mts. Pilkington and Walker (which see) via N. arête, an easy ascent over snow and rock (1 h.).

Mt. Cairnes. (10120) (18)

(P) Between head of Cairnes glacier and Blaeberry river; two mi. S. E. of Mt. Barlow.

Mt. Conway. (10170) (18)

(A) S. W. buttress of Howse pass (Conway creek to Blaeberry river); between Conway and Lambe glaciers. ABC, 15; G. J. xxi, 493; O., 323.

Coronation Mtn. (10420) (18)

(A) One mi. N. E. of Mt. Garth; W. angle between Forbes and Freshfield brooks. ABC, 31, 38, 39; A. J. xxi, 368; xxxix, 397; C. A. J. xiii, 67; C., 270; O., 346; T., 46.

1917 first ascent by the Boundary Commission.

Route 1. From camp at head of Forbes brook, below Bush pass, via W. arête.

Route 2. 1922. J. M. Thorington, *L. Feuz, Jr.* From camp at tongue of Freshfield's glacier, by way of the glacier for one mi., to the foot of the Garth-Coronation gully which is ascended (bush and scree), to the small glacier extending S. from Coronation Mtn. Ascend ice and snow to E. arête, the crest of which is followed to the summit.

Ascent 5 h., 15 m.; descent 2 hr. 45 min.

Mt. De Margerie. (9890) (18)

(A) E. of Mt. Whitaves; between Lambe and Cairnes glaciers.

Mt. Dent. (10720) (18)

(A-P) One mi. N. W. of Mt. Freshfield; S. E. of Pangman Peak. ABC, 36; C. A. J. iii, 9; O., 314.

1910 first ascent by J. E. C. Eaton, B. Otto, *H. Burgener.* From camp at tongue of Freshfield glacier, via the glacier and the E. arête, over snow and very rotten rock to snow slopes and a small bergschrund which is crossed to a col below the summit. Thence traverse S. over rocks and snow to the peak.

Ascent 7 h. In returning, the arête was followed to the S. snow and traversed over an intervening snow dome to the W. arête of Mt. Freshfield (which see) and the latter traversed. Total time 14 h.

Mt. Freshfield. (10945) (18)

(A-P) One mi. S. E. of Mt. Dent; N. W. of Mt. Pilkington; between Campbell and Freshfield icefields. ABC, 36; A. J. xviii, 549; xxi, 367; xxxiv, 396; xxxv, 43; C. A. J. iii, 10; vi, 96; xii, 179; xiii, 67; G. J. xiii, 343; xxi, 488; C., 52, 266; O., 320; T., 45.

1902 first ascent by J. N. Collie, J. Outram, H. E. M. Stutfield, G. M. Weed, H. Woolley, *C. Kaufmann, H. Kaufmann.*

Route 1. From camp at tongue of Freshfield glacier, by way of the glacier to the foot of the peak. Round the band of rocks on their right (N. W.) and ascend snow slopes to a low saddle by which the N. E ridge of the mountain is crossed to upper snow slopes facing Mt Pilkington. The remainder of the route follows the E. arête, the climb mainly on rock with an occasional short traverse (difficult gendarmes and rock faces) to the corniced summit.

Route 2. 1920, C. B. Eddy, V. A. Fynn, A. L. Mumm, *R. Aemmer, M. Inderbinen.* A variant of the above. From the upper slopes, facing Mt. Pilkington, the S. arête is reached (frozen lakelet; 10500′) and the summit reached over easy rocks.

Ascent 9 h. 30 m.; descent 4 h. 20 m.

(1922, H. Palmer, J. M. Thorington, *E. Feuz, Jr.* This route was followed from camp on meadows below E. arête of Mt. Niverville. Ascent 5 h.; descent 2 h. 30 m.)

Route 3. 1910, J. E. C. Eaton, B. Otto, *H. Burgener.* From summit of Mt. Dent (which see) the W. arête of Mt. Freshfield is gained and followed to the summit.

Mt. Garth. (9970) (18)

(A) One mi. S. of Coronation Mtn.; W. of Freshfield glacier. T., 47.

Mt. Helmer. (10045) (18)

(A-P) Three mi. N. of Mt. Mummery; between heads of Freshfield and Mummery glaciers; E. of Mt. Nanga Parbat.

Mt. Lambe. (10438) (18)

(A-P) Two mi. S. W. of Mt. Conway; between heads of Conway, Lambe and Freshfield glaciers. ABC, *29*, *39*; A. J. xxxv, 116.

1918 first ascent by the Boundary Commission.

From camp in amphitheatre below Conway glacier, via W. moraine and upper snowfield to Solitaire-Lambe col, from whence the peak may be ascended without difficulty.

Mt. Low. (10075) (18)

(A-P) S. of Mt. Whiteaves; between heads of Freshfield and Cairnes glaciers; one mi. N. E. of Mt. Barlow.

Mt. Mummery. (S. 10918; N. 10800) (18)

(P) Four mi. S. of Mt. Helmer; between head of Waitabit creek and Blaeberry river. A. J. xix, 110; App. xi, 221; C. A. J. iii, 4; C., *29*; O., *212*, *324*.

1909 first ascent by I. T. Burr, Jr., S. Cabot, Jr., W. R. Peabody, R. Walcott, *G. Feuz, C. Kaufmann.*

S. peak: From camp near stream from Mummery glacier (Blaeberry), via rocks on S. side of valley and long talus slopes, gaining E. arête at lowest point by crossing dry glacier S. of Mummery icefall. Follow arête, traversing toward W. where necessary and approaching highest point from W. (steep ice; step-cutting), the rocky summit being a short distance to S.

Ascent 10 h.

Mt. Nanga Parbat. (W. 10780; E. 10300) (18)

(A-P) One mi. E. of Mt. Trutch; head of Freshfield glacier. ABC, 35; A. J. xxxiv, 395; C. A. J. xiii, 67; T., 43.

W. peak: 1922 first ascent by H. Palmer, J. M. Thorington, *E. Feuz, Jr.*

From camp on meadows below E. arête of Mt. Niverville, via Freshfield snowfield and crevassed névé to N. of the mountain. The N. W. ridge is followed over shale and snow to summit. Descent may be made by S. E. ridge, which is soon left in order to reach the W. snow slopes (small schrund), by which the base of the peak is circled and the tracks regained at a lower level.

Ascent 6 h.

E. peak (Mt. Gilgit): 1922 first ascent by H. Palmer, J. M. Thorington, *E. Feuz, Jr.*

This snow dome, with cornices to N. E. is easily reached by skirting the W. peak to the col between the two, and thence to the summit.

Ascent (from summit of W. peak) 2 h. 45 m.; descent to camp 4 h.

Mt. Niverville. (9720) (18)

(A) One mi. S. W. of Mt. Garth; between Bush pass (Forbes brook-Bush river) and Freshfield glacier. T., 37.

Pangman Peak. (10420) (18)

(A-P) Three mi. S. of Bush pass; N. W. of Mt. Dent. ABC, 36; T., 47.

Mt. Pilkington. (N. 10610; S. 10830) (18)

(A-P) Two mi. S. E. of Mt. Freshfield; N. W. of Mt. Walker. ABC, 35; C. A. J. iii, 7; C., 52; O., 322.

1910 first ascent by J. E. C. Eaton, B. Otto, *H. Burgener.*

From camp at tongue of Freshfield glacier, the glacier is ascended and the steep N. E. slopes of the mountain ascended, crossing a small bergschrund, loose rock and snow to the N. arête. The arête (rotten rock and snow) is followed to the N. peak. The S. summit is higher and is reached via the intervening snow col, the route including two slabby gendarmes which are traversed.

Ascent to N. summit 5 h. 45 m.; to S. peak 30 m. Descent to Pilkington-Walker snowfield 1 h.; the route may be combined with ascents of Mts. Walker and Bulyea (which see). Total time 13 h.

Prior Peak. (10750) (18)

(A-P) Between Mts. Pilkington and Bulyea; E. margin of Campbell icefield. ABC, 35.

Mt. Skene. (10100) (18)

(A) One mi. N. E. of Mt. Bergne; between Conway and Freshfield glaciers.

Mt. Solitaire. (10800) (18)

(A) Between Freshfield and Conway glaciers, at head of latter; one mi. N. W. of Mt. Lambe; one mi. S. E. of Mt. Bergne. ABC, 34; A. J. xxxix, 68.

1920 first ascent by M. M. Strumia, *E. Feuz, Jr.*

From camp at Freshfield tongue, via Freshfield icefield and scree leading to E. col. Thence via S. E. arête over steep, slabby rock to summit.

Ascent 6 h. 45 m.; descent 4 h. 10 m.

Mt. Strahan. (9960) (18)

(A) N. peak of ridge between Freshfield and Conway glaciers; one mi. N. E. of Mt. Skene.

Mt. Termier. (9385) (18)

(P) One mi. E. of Mt. De Margerie; between Lambe and Cairnes glaciers.

Mt. Trutch. (10690) (18)

(A-P) One and a half mi. E. of Mt. Barnard; W. of Mt. Nanga Parbat. ABC, 35; A. J. xxxiv, 98; C. A. J. xiii, 66; T., 42.

1922 first ascent by H. Palmer, J. M. Thorington, *E. Feuz, Jr.*

Following ascent of Mt. Barnard (which see) the snowfield was crossed to the N. W. arête of Mt. Trutch. The first portion of the arête is over shale and snow; the final 500′ is narrower, with interesting climbing on rock.

From snowfield below Mt. Barnard 2 h.; last portion of arête 30 m. Descent to camp on Niverville meadow 4 h. 15 m.

Mt. Walker. (10835) (18)

(A) Half mi. S. E. of Mt. Pilkington; N. E. of Mt. Bulyea. ABC, 35; C. A. J. iii, 8; C., 52; O., 323.

1919 first ascent by J. E. C. Eaton, B. Otto, *H. Burgener.*

From the Pilkington-Walker névé by the S. W. arête over easy slabs and snow (30 m.). (See Mts. Pilkington and Bulyea.) Descent via crevassed névé between Mrs. Pilkington and Walker to camp at tongue of Freshfield glacier, 4 h.

Mt. Whiteaves. (10300) (18)

(A-P) One mi. S. E. of Mt. Lambe; at heads of Lambe, Cairnes and Freshfield glaciers.

SECTION XVI

Bush Pass to Thompson Pass

FORBES-LYELL GROUP

In this group are included peaks on or near the Divide between Bush (7860′; Forbes brook to Bush river) and Thompson (6511′; Castleguard river to Bush river) passes, an airline of twenty miles. Neither of these passes is suitable for horses, although they may be taken without difficulty to the summit of Thompson pass. Mt. Forbes (11902) dominates the southern part of the group as do Mts. Lyell (11495) and Alexandra (11214) in the northern area. The Divide from Bush pass to Mt. Lyell centres about the Lyell icefield, some twenty square miles in extent, discharging by numerous tongues to Bush river and the N. Saskatchewan, but chiefly through the S. E. Lyell tongue, draining through Glacier river and Glacier lake, the valley of which was discovered by Dr. Hector, of the Palliser expedition, in 1858. A camp below this tongue is a central point for ascents of Mts. Forbes and Lyell, while other peaks of the region are accessible from the vicinity of Bush pass in the S. and the head of Alexandra river in the N. of the group. The group is bounded by Howse and the N. Saskatchewan rivers, Forbes brook, Alexandra river, and the N. and S. forks of Bush river.

The routes of approach are the same as for the Freshfield group, preferably from Lake Louise, via Bow river and pass, Mistaya river, Howse and Glacier rivers in four and a half days.

Mt. Alexandra. (S. 11214; N. 10990) (20)

(A-P) Head of W. Alexandra glacier; between Mts. Fresnoy and Douai. ABC, 43; A. J. xxxv, 182; App. x, 147, 210; C. A. J. i, 1, 44; C. 198; O., 367, 400; T., 64.

1902 first ascent by J. Outram, *C. Kaufmann.*

S. peak: From camp at head of Alexandra river (5000′), one mi. to W. Alexandra glacier which is crossed diagonally to E. Rice glacier; ascend the latter, avoiding icefall by detours on rocks to N. (slopes of Mt. Spring Rice), to its head on the Divide (Trident col, 9500′; 5 h.). Cross and traverse névé on W., close under the arête, toward a notch in the S. W. arête of Mt. Fresnoy; descend into glacial basin beyond, crossing to the base of the long sloping back of Mt. Alexandra. Gain W. arête by way of a col between the main peak and a subsidary summit to W. Easy snow to summit (1 h. 20 m. from col in W. arête).

Ascent 7 h. 15 m.; descent 5 h.

Mt. Amery. (10943)

(A) S. W. angle between Alexandra and N. Saskatchewan rivers; S. of Mt. Saskatchewan, the two mountains forming a gateway to the Columbia icefield. A. J. xli, 429; App. xxiii, 385; C. A. J. xviii.

1929 first ascent by L. C. Amery, B. Meredith, *L. Feuz, Jr.*

From camp on right bank of Alexandra river three mi. above junction with Saskatchewan, mountain was approached on W. side through forest to an unbroken semi-circle of black rock overhung by glacier on S. W. (4 h.). Ascent by W. face, keeping as far as possible to prominent ridge running down from summit plateau (4 h.). Traverse (to left) to a ridge toward N., whence cliff bands of some 300′ are surmounted through snow gulleys in the angle between the buttress ridge and the main face. A steep traverse is then made to the left, to a broad ledge leading N. to easy rock and snow of summit.

Ascent 10 h. 45 m.

Arctomys Peak. (9162) (20)
(A) Between head of Arctomys creek and S. E. Lyell glacier. ABC, 51; A. J. xxxix, 62.
1918 first ascent by the Boundary Commission.
Via S. E. Lyell glacier and N. moraine to high meadows whence the ridge is reached over shale slopes.

Mt. Arras *(Snow).* (10180) (19)
(P) E. angle between Icefall brook (S. W. Lyell glacier) and S. branch of Bush river. ABC, 40.

Bush Mtn. (N. 10420; C. 10080; S. 10770) (19)
(P) N. W. angle between Icefall brook and S. branch of Bush river. The N. (Icefall Peak) and S. (Rostrum Peak) summits are one mi. apart. The sharp but lower central summit is unnamed. A. J. xx, 497; xxxix, 60; C., 197, 227; O., 314, 402.

Mt. Cambrai. (10380) (19)
(A-P) Three mi. N. of Bush pass (Forbes brook to Bush river); one mi. E. of Mt. Messines. ABC, 39.

Division Mtn. (9843) (19)
(A-P) W. angle between S. E. Lyell and Mons glaciers; between Mons and Lyell icefields. ABC, 51; A. J. xxxix, 55.
1918 first ascent by the Boundary Commission.
Accessible from either Mons or Lyell icefields; see under routes for Mons Pk. and Mt. Lyell.

Mt. Douai. (10230) (20)
(A-P) Between Mts. Oppy and Alexandra; head of W. Alexandra glacier. ABC, 43.

Duplex Mt. (?10000) (Sect. 213)
(P) N. E. angle between Lyell creek and N. fork of Bush river; N. W. of Bush Mtn.

Mt. Ego. (?10000) (Sect. 213)
(P) N. E. angle between Lyell creek and S. E. fork of Bush river.

Mt. Farbus. (10550) (20)
(A-P) One mi. N. W. of Mt. Lyell; S. E. of Mt. Oppy; head of E. Alexandra glacier. ABC, 43; A. J. xxxv, 188; xxxix, 59; T., 60.

Mt. Forbes. (11902) (18)

(A) Fifth elevation of Canadian Rocky Mountains; five mi. E. of Mons Peak; between Glacier river and Forbes brook. ABC, 15, 38; A. J. xxi, 370; xxxix, 65; App. xix, 238; C. A. J. iii, 4; xii, 26; xvi, 145; G. J. xiii, 342; xxi, 491; C., 49, 273; O., 345.

1902 first ascent by J. N. Collie, J. Outram, H. E. M. Stutfield, G. M. Weed, H. Woolley, *C. Kaufmann, H. Kaufmann.*

Route 1. From camp (5700′) on Forbes brook, a bivouac (7000′) is made at the base of the S. W. arête, which is then reached via scree and snow-covered glacier and forms the general line of ascent. The arête is narrow, jagged, and the rock very rotten. Short traverses across ledges and gullies on E. face are necessary to turn certain portions and finally a minor summit with a depression on the far side is reached (11000′; 5 h. 30 m.) is reached below the main peak. The cliffs beyond rise sheerly and holds are few; about 300′ of difficult rock-work leads to a second cliff which is traversed toward W. and ascended by means of chimneys and a short snow-filled couloir (2 h.). At its top, a narrow arête extends to a third cliff, less difficult than the preceding but composed of very loose rock. Above this, a short knife-edge of snow and rotten shale connects with the final snow arête (1 h.).

(Descent by W. arête and snow of N. W. face to W. col as in route 2; thence down S. Forbes glacier, the best route through the crevasses being along its E. margin. 1920, J. W. A. Hickson, *E. Feuz, Jr.* The traverse was repeated, with minor variations, there being then less snow on the N. W. face.)

Route 2. 1920, A. J. Ostheimer, M. M. Strumia, J. M. Thorington, *E. Feuz, Jr.* From camp on Glacier river follow S. bank and cross over rocky promontory (Lake Moraine; 5116′) at terminus of S. E. Lyell glacier, thus avoiding its emergent stream. Follow up stream from Mons glacier and cross to ice at first convenient point. The dry glacier is ascended diagonally to a timbered point (7000′) above the W. lateral moraine and a bivouac made (3 h. 15 m.). Ascend through bush and over scree until above the level of the upper

icefall, whence the Mons icefield is reached and crossed to its E. lateral moraine, whence the tongue of N. Forbes glacier is reached. Follow this (crevasses in upper portion) to its head on W. col of Mt. Forbes. The basal cliff is passed through an irregular 25′ chimney some 300′ to N. E. of the col (a direction cairn should be made at the top of this chimney). The steep scree of the N. W. face, is now ascended and the crest of the W. arête gained over several small towers of extremely loose rock, (stonefalls). The arête is followed to the summit; snow and ice in upper portion may require step-cutting.

Bivouac to W. col 5 h.; summit 2 h. 15 m. Descent to W. col 2 h. 50 m.; bivouac 3 h; camp 2 h.

Mt. Fresnoy *(Consolation).* (10730) (20)

(A-P) One mi. N. W. of Mt. Alexandra; between E. and S. Rice glaciers. O., 397.

1902 first ascent by J. Outram, *C. Kaufmann.*

From Alexandra river via W. Alexandra and E. Rice glaciers as in route for Mt Alexandra (which see). From col (Trident col) on Divide at head of E. Rice glacier the N. W. arête of Mt. Fresnoy is ascended to the summit.

Ascent (Trident col 5 h.) 7 h. 30 m.

Golden Eagle Peak. (10000) (19)

(A-P) One mi. S. of Mt. Forbes; between S. Forbes glacier and Forbes brook. ABC, 39.

Mt. Hooge. (10550) (20)

(A) S. of Mt. Monchy; E. of head of Ridges creek; N. W. angle between Arctomys creek and N. Saskatchewan river.

Mt. Kemmel (10160) (19)

(P) Four mi. N. of Bush Mtn; one mi. S. W. of Mt. La Clytte.

Mt. La Clytte. (9505) (19)

(P) W. of Icefall brook (Bush river); one mi. S. of Mt. Lens.

Mt. Lens. (10160) (19)

(P) One mi. N. of Mt. La Clytte; W. margin of S. W. Lyell icefield.

Mt. Lyell. (11495) (20)

(A, Peaks 1-2; A-P, Peaks 3-5) Two mi. S. E. of Mt. Farbus; between head of E. Alexandra glacier and N. margin of Lyell icefield. ABC, 40, 42; A. J. xxi, 338; xxxvi, 182, 188; App. x, 142; C. A. J. i, 1, 44; C., 300; O., 336, 388; T., 64.

The peaks are most accessible from a camp at tongue of S. E. Lyell glacier (Glacier river). Cross (with horses) to N. bank, whence a trail leads to the ice. The ice may also be reached by following the S. bank, crossing a rock promontory (Lake Moraine) and gaining the glacier above its emergent stream. The S. E. Lyell glacier is then ascended for a mile and crossed to its N. lateral moraine; ascend scree slopes to bivouac on meadow (6800′; 3 h.) below subsidiary tongue to N. Snow slopes and this tongue offer an easy route to the Lyell icefield.

Peak 1 (11370): 1926 first ascent by A. J. Ostheimer, M. M. Strumia, J. M. Thorington, *E. Feuz, Jr.*

From bivouac above S. E. Lyell glacier via subsidiary tongue to N. and Lyell icefield. Rising slopes of névé (few crevasses) are followed to the base of Peak 2, with steep snow (step-cutting) to 1-2 col, whence Peak 1 is reached over the corniced W. arête to rock summit.

Ascent from bivouac 6 h. A. J. xxxix, 57; C. A. J. xvi, 142; H. M. i, 1, 20.

Peak 2 (11495): 1902 first ascent by J. Outram, *C. Kaufmann.*

Route 1. From camp at head of Alexandra river (5000′) to E. Alexandra glacier which is ascended by the slabs on E. margin until the icefall is passed. The lateral moraine and flat glacier are then followed to the bergeschrund (5 h.), crossing to steep rock and snow (step-cutting) and reaching a deep crevassed hollow, N. of Peak 2. Ascend over steep snow to 2-3 col (11000′), whence Peak 2 is reached over its W. snow arête.

Ascent 8 h. 45 m.

Route 2. 1926, A. J. Ostheimer, M. M. Strumia, J. M. Thorington, *E. Feuz, Jr.*

Following ascent of Peak 1, the 1-2 col was regained and Peak 2 traversed to 2-3 col. The E. snow arête is broken by a large crevasse, which may be avoided by a short detour below it on the N. slopes. The W. snow arête leads to the 2-3 col.

Summit of Peak 1 to Peak 2, 1 h. A. J. xxxix, 58; C. A. J. xvi, 142; H. M. i, 1, 20.

Peak 3 (11495): 1926 ascent by A. J. Ostheimer, M. M. Strumia, J. M. Thorington, *E. Feuz, Jr.*

From bivouac above S. E. Lyell glacier to S. base of mountain as under Peak 1 (which see). Cliff buttresses, rising from the 2-3 and 3-4 cols, support a narrow central mass of snow, descending to the icefield, split into two equal parts by a narrow vertical rock rib midway between the skyline and the bergschrund. The lower lip of the schrund is followed from below the 2-3 col and crossed by a small bridge, to steep snow beyond (step-cutting). The W. side of the rib (200′ above; loose rock) is gained and ascended, care being taken not to dislodge stones. Steep snow is again encountered with lessening angle, leading to the summit crest about 200′ E. of the rocky peak (1 h. from bergschrund).

Ascent from bivouac 5 h. A. J. xxxix, 62; C. A. J. xvi, 143; H. M. i, 1, 22.

Peak 4 (11260): 1927 first ascent by D. Duncan, T. Lynes, J. Simpson, *Ern. Feuz.*

From bivouac above S. E. Lyell glacier to Lyell icefield as under Peak 1 (which see). When the Lyell peaks come into view, a course is laid to W. in order to gain the S. snow shoulder of Peak 5, which is crossed (10800′) and a descent of some 500′ made in order to skirt the W. cliff of Peak 5. The 4-5 col is gained over snow slopes, from which point (10700′) the much-corniced S. arête is followed to the summit of Peak 4.

Ascent from bivouac 7 h. A. J. xxxix, 57; H. M. i, 2, 60.

Peak 5 (11150): 1926 first ascent by A. J. Ostheimer, M. M. Strumia, J. M. Thorington, *E. Feuz, Jr.*

Following ascent of Peak 3, the icefield was regained and followed below the E. faces of Peaks 4 and 5. A crevassed icefall was ascended to the S. shoulder of Peak 5 and the S. arête followed (snow and shale) to the summit. [This was the first occasion on which two 11000′ first-ascents were made in one day.]

Summit of Peak 3 to Peak 5, 3 h. 45 m. A. J. xxxix, 64; C. A. J. xvi, 144; H. M. i, 1, 22.

Mt. Messines. (10290) (19)

(A-P) S. margin of Mons icefield; between Mts. Cambrai and St. Julien. ABC, 39.

Mt. Monchy. (10530) (20)

(A) One mi. S. of Mt. Willerval; N. of Mt. Hooge; E. of Ridges creek.

Mons Peak *(Kaufmann).* (10114) (19)

(A-P) Two mi. N. W. of Mt. St. Julien; W. margin of Mons icefield. A low glacial pass (8150′) one mi. N. links Mons icefield with the S. W. Lyell glaciers. ABC, 39, 40; App. x, 209; O., 311.

1902 first ascent by J. Outram, *C. Kaufmann.*

From camp on Glacier river follow S. bank and cross over a rock promontory at the terminus of the S. E. Lyell glacier, thus avoiding its emergent stream. Follow up stream from Mons glacier and cross to ice at first convenient point. The dry glacier is ascended diagonally to a timbered point (7000′; suitable for bivouac, see Mt. Forbes) above the W. lateral moraine. Ascend through bush and over scree until above the level of upper icefall, whence the Mons icefield is reached and névé followed to the base of the peak. The final portions of the N. E. slopes may require considerable step-cutting.

Ascent 6 h. 30 m.

Mt. Oppy. (10940) (20)

(A-P) Between Mts. Farbus and Douai; between heads of the Alexandra glaciers. ABC, 44; A. J. xxxv, 188; xxxix, 58; O., 387; T., 64.

Mt. Outram. (10670) (18)

(A) Three mi. N. E. of Mt. Forbes; S. W. angle between Glacier lake and Howse river. App. xvi, 152.

1924 first ascent, F. V. Field, W. O. Field, L. Harris, *J. Biner, E. Feuz, Jr.*

From Howse river via S. face.

Ascent 6 h. 30 m.

Mt. Queant. (10200) (20)

(P) One mi. S. W. of Mt. Spring Rice; head of S. Rice glaciers. ABC, 44.

Mt. St. Julien. (10140) (19)

(A-P) S. margin of Mons icefield; one mi. W. of Mt. Messines. ABC, 39.

Mt. Spring Rice. (10745) (20)

(A-P) Two mi. S. of Watchman Peak; head of E. Rice glacier. ABC, 44, 59; A. J. xxxiv, 199; C. A. J. xiv, 6.

1923 first ascent by J. W. A. Hickson, *E. Feuz, Jr.*

From camp at head of Alexandra river by way of W. Alexandra glacier which is crossed diagonally to E. Rice glacier. Ascend the latter, keeping to rocks on N. side in order to avoid crevasses, reaching snow basin above the icefall. Broken slopes (step-cutting) lead up to the Divide (Trident col, 9500′). Snow and rock (30′ wall, ascended through a couloir) lead to the summit (1 h. from col).

Total time from camp 14 h.

[Turret Peak, of which the first ascent was made in 1902 by J. Outram, *C. Kaufmann*, was ascended en route from Trident col to Thompson pass. Its location has not been definitely determined by subsequent parties; it is mentioned here for completeness. Not improbably Rice E., No. 1. C. A. J. xiv, 8; O., 399.]

Unnamed. (10700) (18)

(A) One mi. W. of Mt. Forbes; between N. and W. Forbes glaciers.

Unnamed. (10400) (18)

(A) One mi. S. W. of Mt. Forbes; between W. and S. Forbes glaciers.

Unnamed *(Rice E.).* (10023) (20)
(A-P) Between Watchman Peak and Mt. Spring Rice; head of N. Rice glacier. ABC, 51; C. A. J. xiv, 5.
1918 first ascent by the Boundary Commission.
From Thompson pass over shale and easy ledges to ridge connecting with Watchman Peak, from which the objective point may be gained.

Mt. Valenciennes. (10160) (19)
(P) Three mi. N. W. of Bush pass; head of Mons creek.

Watchman Peak. (9873) (20)
(A-P) S. E. buttress of Thompson pass (Castleguard river to Bush river). ABC, 46, 48, 51; C. A. J. xiv, 5; O., 362, 408.
1918 first ascent by the Boundary Commission.
From camp by Cinema lake, via Thompson pass and W. slopes.

Mt. Whiterose. (10060) (20)
(P) Two mi. S. W. of Mt. Alexandra; between Lyell creek and head of Rice brook. ABC, 60.

Mt. Willerval. (10509) (20)
(A) One mi. N. of Mt. Monchy; S. W. of Mt. Amery; S. E. angle between Ridges creek and Alexandra river.

Mt. Zillebeke. (9750) (19)
(P) E. angle between Icefall brook and S. fork of Bush river; two mi. S. E. of Mt. Arras.

SECTION XVII

MURCHISON-CLINE GROUP

The group includes peaks of the N. Saskatchewan drainage, E. of the N. head-branch and Mistaya river. On the S. the boundary is from Bow pass across the dividing ridges between Sifleur and Clearwater rivers; on the N., the passes (Wilcox, Nigel, Cataract) separating the N. Saskatchewan and Brazeau rivers.

The frontal range is here somewhat narrow and soon breaks down in the plains to E. Mt. Cline (11027) and Mt. Murchison (10936) are the highest peaks, the entire group being on the Alberta (A) slope. The usual approach is from S., via Bow and Mistaya rivers.

Mt. Cline. (11027) (Standard 45)

(A) Six mi. N. E. of Mt. Wilson; between N. Saskatchewan and Cline rivers. A. J. xxxix, 39; C., 306; G. J. xxi, 495; Honolulu Star Bulletin, Aug. 10, 1927.

1927 first ascent by J. H. Barnes, A. Castle, A. Castle, Jr., J. Simpson, *R. Aemmer.*

From camp at N. E. fork of Wilson creek (five mi. from N. Saskatchewan; Wilson creek is here separated from Wilson glacier by a high ridge). Follow this fork and cross to cirque at head of next creek to E. (tributary to N. Saskatchewan river), from the S. extremity of which the upper portion of a glacier on the S. W. side of Mt. Cline is reached. Cross this to the S. W. arête which is followed to the summit. The ridge is generally broad and easy, but has two cracks: the first is crossed by a keystone lodged between the walls some 15′ below; the second crack (200′

beyond) overhangs slightly and is 7′ across in its narrowest part. It is necessary for the leader to climb down for a distance to a narrowing where a small ledge on the opposite wall may be reached; with the assistance of the rope it is possible for the rest of a party to jump the crack, the lip toward the peak being the lower (not possible in descent). Beyond this rope is not required; 1000′ to summit.

Ascent 7 h. 30 m.; descent 3 h.

Mt. Coleman. (10289) (Standard 45)

(A) E. of N. Saskatchewan river, opposite mouth of Alexandra river; N. W. of Mt. Wilson; N. buttress of Pinto pass (N. Saskatchewan to Cline river). A. J. xxxv, 188; G. J. xxi, 588; T., 61.

1927 first recorded ascent by the Topographical Survey.

An easy ascent from W. over scree and boulders. From camp on Saskatchewan river, opposite mouth of Alexandra river, by trail to Pinto pass, 2 h. Pass to summit 3 h. Splendid view of main watershed peaks from Mt. Lyell to Mt. Columbia.

Coral Mtn. (10264)

(A) Head of Coral creek (Cline river).

1928 first ascent by the Topographical Survey.

Mt. Murchison. (N. tower, 10936) (Standard 19)

(A) S. E. angle between Mistaya and N. Saskatchewan rivers; S. E. of Mt. Wilson. A. J. xxi, 365; C., 138, 251; G. J. xxi, 487; O., 302.

1902 first ascent by J. N. Collie, H. E. M. Stutfield, G. M. Weed, *H. Kaufmann.*

From camp at mouth of Mistaya river via W. face. Follow a dry stream-bed and ascend a series of shale slopes to a narrow snow couloir, and via rocks on its right (to avoid falling stones) reach N. W. arête over snow slopes. The highest peak is snow-clad and invisible from Mistaya river; it is reached over long slopes of rock and shale, leading to corniced summit (the rock peak to E. is slightly lower).

Ascent 7 h. 30 m.

Noyes Peak. (10040) (17)

(A) E. of upper Wildfowl lake (Mistaya river); two mi. N. W. of Mt. Weed. A. J. xxi, 374; G. J. xxi, 495; C., 305.

1902 first ascent by J. N. Collie, H. E. M. Stutfield, G. M. Weed, H. Woolley.

By way of a gully on W. face, above which a steep snow couloir leads up to easy rocks and shale to the summit.

Observation Peak. (10214) (17)

(A) N. E. buttress of Bow pass (Bow lake to Mistaya river). ABC, 7; App. ix, 19, 25; W., 208.

1895 first ascent by W. Peyto, W. D. Wilcox.

An easy ascent from Bow pass; shale, with some snow near top.

Mt. Silverhorn. (?9550) (R. M. Park, 1923)

(A) N. of Observation Peak; S. E. of Mt. Weed; between Mistaya river and Dolomite creek. App. ix, 16; G. J. xxi, 588.

Mt. Stewart. (10000)

(A) E. buttress of Cataract pass (Brazeau to Cline river); five mi. N. of Pinto lake. G. J. xxi, 509.

1902, A. P. Coleman, L. Q. Coleman. Incomplete ascent from Cataract pass (7000′) by way of W. slopes, an impassable cliff being reached at 9830′.

Unnamed. (10517)

(A) Two mi. N. of and culminating a shoulder of Mt. Cline.

Weed Mtn. (10100) (17)

(A) N. W. of Observation Peak; between Mistaya river and Dolomite creek.

Mt. Wilson. (10648) (Standard 45)

(A) N. of N. Saskatchewan river; S. E. of Mt. Coleman. The three forks of the N. Saskatchewan join, the main river flowing E. from the mountains, between the portals of Mts. Wilson and Murchison. App. x, 210; C., 83; O., 331.

1902 first ascent by J. Outram, *C. Kaufmann.*

Route 1. From camp on N. Saskatchewan river at foot of Pinto pass, proceed to head of narrow valley immediately on N. side of Mt. Wilson (1 h.); ascend via right bank of stream to foot of large waterfall, cross stream and ascend 300′ rock wall to a lesser valley whence arête running N. E. from N. peak of the massif may be gained. Cross to glacier (Wilson glacier) on far side (6 h. 30 m.) and ascend to its head, gaining N. E. arête of main summit by traversing snow and débris. Follow crest of snow to top (2 h. 45 m.).

Route 2. From Saskatchewan forks to timberline, whence a steep gully of scree and grass leads upward (2500′) to a notch in the S. wall, whence summit may be reached over steep rock and snow. (Outram's route of descent; traverse 13 h. 30 m.)

Route 3. 1927, J. H. Barnes, A. L. Castle, A. L. Castle, Jr., J. Simpson, *R. Aemmer.* From camp at tongue of Wilson glacier (the stream from which is ascended for a short distance in the beginning of Route 1) over uncrevassed glacier and snow direct to summit.

[A fatal accident occurred in 1927 to one of the members of a surveying party, who fell from a snow-covered ledge, no rope being used. C. A. J. xvi, 242.]

SECTION XVIII

Thompson Pass to head of Athabaska River

COLUMBIA GROUP

This group includes peaks of the Columbia icefield between Thompson pass (6511'; Castleguard river to Bush river) and the gorge of Athabaska river, the extreme N. W. boundary of the group being the angle between the Athabaska and its Sunwapta tributary. On the W. the arbitrary division line between this and the Chaba group is the low glacial pass (7300') connecting the W. terminal fork of Athabaska river with the head of Tsar creek. This pass lies five miles due W. of Mt. King Edward. The E. boundary may be taken as the North Saskatchewan and Sunwapta rivers, the heads of which are connected by Sunwapta pass (7300').

The Columbia icefield occupying the central part of the group contains an area of about 110 square miles, including its radiating tongues, of which the chief are the Saskatchewan, Athabaska and Columbia, the first of which drains to the N. Saskatchewan, the last two forming sources of the Athabaska. It will thus be seen that this immense field, the largest in the Canadian Rocky mountains, lies on a tri-oceanic watershed, The Snow Dome (11340) being the hydrographic apex. The higher peaks of the group include Mt Columbia (12294), North Twin (12085), Mt. Alberta (11874), Mt. Bryce (11507), Mt. Athabaska (11452), and Mt. King Edward (11400), the region generally presenting the climax of scenic grandeur of the entire range.

Outfits reach the Columbia icefield from Lake Louise on the following schedule by days: (1) Lake Louise to Hector

slide; (2) Bow lake; (3) upper Wildfowl lake; (4) Saskatchewan forks (whence the route to Glacier lake or the Freshfield group turns S. W.); (5) mouth of Alexandra river; (6) head of Castleguard river. Trail distance is approximately 165 miles.

Outfits starting from Jasper will usually travel by Maligne lake, the scenery being superior to that of the Sunwapta valley. The schedule by days is as follows: (1) Jasper to Medicine lake; (2) Maligne lake; (3) head of Maligne river; (4) Poboktan creek; (5) Brazeau river; (6) Nigel pass to Sunwapta pass. Alternative to the latter, descent may be made of the North Saskatchewan to the mouth of Alexandra river and the head of Castleguard river reached on the eighth day.

Horses may also be taken from Sunwapta pass, by way of a shoulder of Mt. Athabaska, over the Saskatchewan glacier to the head of Castleguard valley (better in reverse direction; see below).

The low level of the valley of the Athabaska, heading on the N. side of Mt. Columbia, and the scarcity of horse-feed are among the disadvantages of such an approach, although certain peaks (Alberta, King Edward) lie along this route.

The meadows below Mt. Castleguard, afford attractive camp-sites on the S. side of the icefield at timberline, whence the icefield may be gained with ease. All ascents of Mt Columbia have thus far been made from this direction.

Map reference: Columbia icefield (Interprovincial Survey Sheets 21-23, reduced to one sheet. C. A. J. xiv, 47).

Resume of Expeditions:

1. In 1896 W. D. Wilcox set out from Lake Louise and proceeded northward via Bow pass, Mistaya river and the N. Saskatchewan, being the first white man to ascend the latter to Sunwapta pass. He also crossed the shoulder (Wilcox pass) leading to lower portions of Sunwapta river, visited Fortress lake and triangulated several peaks of that area.

2. In 1897, J. N. Collie, from the Freshfield area sighted a high peak to the N. which he thought might be Mt. Brown or Mt. Hooker as, on the map of that time, only these were shown N. of Mt. Lyell. Accordingly in 1898 he organized

an expedition to investigate them, his ascent, with H. Woolley, of Mt. Athabaska leading to the discovery of the Columbia icefield. Collie's party was the first to reach the icefield and to see the source of the main Athabaska river. A map published later by Collie has been, with subsequent extensions the standard ever since, and now is only superseded by those portions of the Boundary Commission's maps which overlap it.

3. In 1900 C. S. Thompson ascended the N. Saskatchewan and Alexandra rivers and reached the pass, S. of Mt. Bryce, which bears his name.

4. In 1901, J. Habel, a German explorer, followed Wilcox's route to Fortress lake (which had been reached by Coleman as early as 1892), visited the sources of Chaba and Athabaska rivers and carried out several minor ascents. He was the first to view the N. precipices of Mt. Columbia.

5. In 1901, J. Outram, with *C. Kaufmann* ascended Alexandra and Castleguard rivers, reaching Mt. Columbia, the first occasion on which a 12000′ peak of the Canadian Rocky mountains was climbed. The difficult summit of Mt. Bryce was also attained.

6. In 1923, W. S. Ladd, J. M. Thorington and *C. Kain* reached the Columbia icefield from the head of Castleguard river, ascending North Twin, Mts. Columbia, Saskatchewan and Athabaska. A route down the Saskatchewan glacier, suitable for horses, was discovered and used for the first time between the head of Castleguard river and Sunwapta pass.

7. In 1927, A. J. Ostheimer and *H. Fuhrer* were the first to reach the Columbia icefield from the Athabaska valley, ascending North Twin, Stutfield, Kitchener and Snow Dome in a single *tour de force.*

Mt. Alberta. (11874) (23)

(Ar) Five mi. N. of the Twins; between Mt. Woolley and Athabaska river; between Lynx and Habel creeks. ABC, 68; A. J. xix, 262; xxxvii, 316, 374; App. x, 37; xix, 246, 408; T., 72, 80; Mid-Pacific Mag. xxxi (1926), 127.

1925 first ascent by S. Hashimoto, H. Hatano, T. Hayakawa, Y. Maki, Y. Mitai, N. Okabe, *H. Fuhrer, H. Kohler, J. Weber.*

From camp on meadow (6800′) at head of Habel creek, via S. and E. slopes and central portion of E. face to extreme N. end which is highest point. (Loose rock and falling stones; a night was spent at 11000′; four pitons used in roping-off during descent; upper 1500′ of the mountain difficult.)

Ascent 16 h.; descent 16 h.

Mt. Athabaska. (11452) (22)

(A-Ar) Three mi. S. W. of Sunwapta pass (N. Saskatchewan to Sunwapta river); between Saskatchewan and Athabaska glaciers. ABC, 66; A. J. xix, 262; xxxvi, 196; C. A. J. xii, 37; xiv, 44; C., 105; O., 329; T., 100.

1898 first ascent by J. N. Collie, H. Woolley.

Route 1. From Sunwapta pass via the E. glacier to the N. E. arête which is crossed to the N. glacier. From the head of its basin the N. E. arête is regained and followed (step-cutting) to the precipitous summit rocks. These are skirted to the right (N.) and surmounted by a narrow chimney (loose rock); a 15′ wall (difficult) is then ascended and the summit reached.

Ascent 8 h.; with descent by Route 2, 15 h.

Route 2. 1920, J. W. A. Hickson, E. L. Reford, *E. Feuz, Jr.* From camp at tongue of Athabaska glacier, cross low timbered shoulder to N. glacier which is ascended for one mi. bearing to right and gaining small snow col on N. W. arête (10200′), whence the arête is followed over shale and snow to the summit.

Route 3. 1923, W. S. Ladd, J. M. Thorington, *C. Kaufmann.* Following ascent by Route 2 (5 h. 30 m.), descent was made by the N. W. arête as far as the snow col; then the steep W. slopes (snow and rock chimneys) were descended (1000′) to the narrow N. W. glacier, the icefall being passed without difficulty on its E. lateral moraine. The margin of the Athabaska tongue is followed to camp.

[From the summit of Mt. Athabaska the 1898 party discovered the Columbia icefield.]

Mt. Bryce. (11507) (21)

(P) N. buttress of Thompson pass; W. angle between Bryce creek and Rice brook; S. margin of Columbia icefield.

ABC, 45, 63; A. J. xx, 498; xxi, 464; App. x, 142; C., 99, 108; C. A. J. i, 1, 44; O., 412; T., 66, 73; W., 247.

1902 first ascent by J. Outram, *C. Kaufmann.*

From camp at Cinema lake, Thompson pass, ascend scree slopes to first glacier W. of pass summit. Then mounting high lateral moraine, cross snow and ice towards rocks of a subsidiary point E. of the main massif; ascend snow and slabs to connecting ridge above, arriving on main E. arête above cleve descending to Columbia icefield (Castleguard glaciers). From this point (9500'; 3 h.) follow sharp snow-covered arête toward W., traversing a number of ice gullies and reaching 70' cliff which is ascended by a narrow chimney (loose rock; last 20' difficult). Above this the gradient lessens and rock gives way to snow and ice (step-cutting) leading to E. peak (10800'; 7 h.). To avoid long arête and traverse of central peak (11100'), descend 600' of steep snow to S., reaching glacier sweeping below the three peaks; skirt central cliffs and regain arête at narrow gap between central and W. peak. Follow corniced arête (step-cutting) to W. and highest point (900' above col).

Ascent from camp 11 h.; total time 20 h. 30 m.

1929, L. C. Amery, *E. Feuz, Jr.* Incomplete ascent from S. Thompson pass was crossed, and valley of Rice brook descended to a point three mi. below its junction with the S. branch, and at the head of the canyon leading down to Bush river. Above this (4 h.) a bivouac was made, from which (1 h.) the S. glacier, enclosed between S. E. and S. W. ridges was reached. The S. W. ridge (bad rock) was followed until it merged in the S. face, and a traverse made to the ice linking the glacier with the E. face of the summit. On account of soft snow the party turned back about 250' below the top. A. J. xli, 429; C. A. J. xviii.

Ascent from bivouac by this route should not normally take more than 9 h.

The Castelets. (W. 9440; E. 9002) (20)

(A) N. angle between Castelets creek and Alexandra river; S. of Terrace creek. ABC, 45.

E. summit: 1918 first ascent by the Boundary Commission.

Mt. Castleguard. (10096) (20)

(A) W. of head of Castleguard valley; S. E. margin of Columbia icefield; S. W. of Saskatchewan glacier. ABC, 49, 64; A. J. xxxv, 190; App. xvi, 149; C. A. J. xiv, 39, 117; T., 76.

1919 first ascent by the Boundary Commission.

Route 1. From camp on Castleguard meadows to the central tongue of the Castleguard glaciers, from which the S. E. shale shoulder is reached and ascended to base of peak. Then cross névé of E. glacier and gain N. snow arête which is followed to the summit.

Route 2. 1923, T. Frayne, U. La Casse, W. S. Ladd, J. Simpson, J. M. Thorington, *C. Kain.* A variant of the above. From the crest of the S. E. shale shoulder the steep E. snow arête (step-cutting) is followed closely to the summit.

Ascent from camp 4 h.; descent by Route 1, 3 h. 30 m.

[By rounding Mt. Castleguard on the E. one reaches the Columbia icefield, now the most satisfactory route for attacking Mt. Columbia and The Twins.]

Mt. Columbia. (12294) (23)

(Ar-P) Second elevation of Canadian Rocky mountains. Six mi. S. W. of The Snow Dome; five mi. S. of The Twins; head of Columbia glacier (Athabaska river). ABC, 62, 63, 76; App. x, 32, 142; C. A. J. i, 1, 44; C., 108, 117, 260; C., 376, 434; G. J. xiv, 101.

1902 first ascent by J. Outram, *C. Kaufmann.*

Route 1. From camp on Castleguard river, opposite mouth of Watchman creek (5500′) by way of S. W. Castleguard glacier and slopes W. of Mt. Castleguard to Columbia névé (8000′). Threading crevasses proceed S. W. of The Snow Dome across Columbia icefield, circling heads of glaciers draining to Bryce creek (Bush river) to base of Mt. Columbia (10000′; 9 h.). Cross bergschrund and ascend steep snow of E. face to small outcrop of rock (11000′); thence steep snow (step-cutting) bearing slightly to right (N.) at level of junction of S. E. and S. W. arêtes, gaining the N. snow shoulder from a hollow where a low cornice must be cut through and the summit attained 100′ to S.

Ascent 11 h. 30 m.; total 22 h.

Route 2. 1923, W. S. Ladd, J. Simpson, J. M. Thorington, *C. Kain.* From camp on Castleguard meadows by way of the shoulder of Mt. Castleguard (which see) to Columbia icefield; thence as in Route 1. (Rope not required until bergschrund of Mt. Columbia is reached.) A. J. xxxv, 194; C. A. J. xiv, 43; T., 89, 288.

Ascent: Castleguard shoulder 2 h.; head of Columbia glacier 4 h. 15 m.; summit 3 h. Descent to camp 6 h.

Route 3. 1924, M. Brooks, F. V. Field, W. O. Field, L. Harris, C. Smith, E. Stanton, *J. Biner, E. Feuz, Jr.* Via Castleguard shoulder to base of peak as in Route 2 (7 h.). Because of ice on E. face the mountain was rounded on its S. side and ascended by its S. W. arête (loose rock) to the summit snow (6 h.). App. xvi, 108.

Ascent from camp 13 h.; descent to base of peak 3 h., with additional 6 h. to camp.

(This route was repeated in 1927 by J. H. Barnes, A. Castle, A. Castle, Jr., B. Painter, *R. Aemmer.* Ascent to base of S. W. arête 10 h. 30 m.; to summit 5 h. 30 m. Both parties crossed the icefield at night in order to obtain firm snow. Route 2 is the shorter when the E. face of the mountain is in good condition.)

Diadem Peak. (11060) (22)

(Ar) One mi. N. of Mt. Woolley; between head of Lynx creek and Sunwapta river. ABC, 66; A. J. xix, 262, 461; C., 128; G. J. xiii, 351; O., 34.

1898 first ascent by J. N. Collie, H. E. M. Stutfield, H. Woolley.

From camp in Sunwapta valley via canyon of W. tributary coming from cirque (Diadem glacier) on E. slopes of Diadem Peak and Mt. Woolley. Follow N. margin of icefall to foot of E. face of objective peak. Ascend steep and insecure rock rib in line of E. arête to avoid falling stones; last 150′ of the peak is gained over steep snow to flat rocky summit.

Mt. King Edward. (11400) (23)

(Ar-P) Three mi. W. of Mt. Columbia; S. angle between terminal forks of Athabaska river. ABC, 62, 76; App. x, 38; xix, 245, 264; C. A. J. xii, 181; T., 73.

1920, attempted by A. Carpe, H. Palmer who reached 10800′ on W. face.

1924 first ascent by J. W. A. Hickson, H. Palmer, *C. Kain.*

From camp in Athabaska valley (5000′) at mouth of stream from King Edward glacier. This is followed (one mi.; 800′) to the terminal moraine. Ascend glacier, passing bergschrund and icefall by snow tongue (step-cutting) on its E. margin to upper basin (3 h. 30 m.). Pass around base of peak on snow to S. W. ridge and S. face, gaining rocks at 9000′ (1 h. 30 m.); loose scree to summit cap (3 h. 30 m.). Traverse and cross S. E. arête by narrow fissure, beyond which 100′ broken chimney pierces cliff belt and gives access to S. peak (which is higher than N. summit by 80′).

Ascent from camp 11 h. 45 m.; descent 6 h. 40 m. A. J. xxxvii, 306.

Mt. Kitchener *(Douglas).* (11500) (22)

(Ar) W. angle between Dome glacier and Sunwapta river; two mi. N. of The Snow Dome. ABC, 66; App. x, 31; C., 121; O., 377; T., 74.

1927 first ascent by A. J. Ostheimer, *H. Fuhrer.*

From Athabaska valley via Columbia glacier and N. E. cliffs to Columbia icefield (see Route 2 under The Snow Dome). North Twin and Mt. Stutfield were ascended, Mt. Kitchener being reached from the summit of the latter (3 h. 15 m.) by crossing the intervening portion of the icefield and ascending the objective peak by its S. W. slopes. C. A. J. xvi, 21; H. M. i, 2, 50.

(Alternate routes will be found under Routes 1 and 3 for The Snow Dome.)

Mt. Saskatchewan. (10964) (20)

(A) N. W. angle between Alexandra and N. Saskatchewan rivers; four mi. E. of Terrace Mtn. ABC, 50; A. J. xxxv, 192; xli, 429; App. x, 146; C. A. J. xiv, 41, 5, 85; C., 108; O., 364, 373; T., 85.

1923 first ascent by W. S. Ladd, J. M. Thorington, *C. Kain.*

From camp (6800′) on Castleguard meadows cross low snow pass N. of Terrace Mtn. to head of Terrace creek (2 h.) and cross meadows to W. cirque of S. W. face. A

conspicuous couloir (snow) leads one (300′) to a shale crest between the E. and W. cirques of this face. Follow scree of this crest to base of first cliff belt, under which a traverse of 250′ to E. is made. Two slabby chimneys (water) lead through first belt (40′). Then traversing 300′ further E. a chimney (direction cairn at top) leads upward to a point below and N. of the summit at 10800′. Then 300′ of down-tilted scree, followed by steep snow (danger of avalanches) to crest of main W. arête. The summit, several hundred yards to E. is reached over the arête with a low wall at the very top (20 m. from point where arête was gained).

Ascent from camp 10 h.; descent 6 h.

[By August this mountain is dry, and little or no summit snow will be encountered. 1929, L. C. Amery, *E. Feuz, Jr.*]

The Snow Dome. (11340) (22)

(A-Ar-D) Hydrographic apex of Columbia icefield; between heads of Dome and Athabaska glaciers; two mi. S. of Mt. Kitchener. *MP.*, 56, 63; C., 121; O., 375; T., 73, 78. 1898 first ascent by J. N. Collie, H. E. M. Stutfield, H. Woolley.

Route 1. From camp below Athabaska glacier, via E. lateral moraine. Three short but crevassed icefalls must be passed in order to reach the Columbia icefield (5 h.) from which it is a snow walk up its W. slopes.

Route 2. 1927, A. J. Ostheimer, *H. Fuhrer.* From Athabaska valley via Columbia glacier, bearing to a couloir above its N. E. lateral moraine (1 h. 15 m.). Thence by cliff bands and couloirs, followed by steep snow (step-cutting) to level of Columbia icefield (9800′; 3 h. 45 m.). North Twin, Mts. Stutfield and Kitchener were ascended. The Snow Dome being reached from the summit of the latter (4 h.). *C. A. J.* xvi, 21; *H. M.* i, 2, 50.

Route 3. The simplest route, which now covers no new ground, leads from Castleguard meadows over the E. slopes of Mt. Castleguard (which see) to the Columbia icefield, whence The Snow Dome may be reached after rounding the heads of the Saskatchewan and Athabaska glaciers.

Mt. Stutfield. (11320) (22)

(Ar) Three mi. N. E. of The Twins; N. margin of Columbia icefield. ABC, 66; C., 126; O., 434; T., 74.

1925, attempt by Y. Maki and party (see under Mt. Alberta), from Habel creek by way of the N. glacier, time forcing a return when a little short of the top.

1927 first ascent by A. J. Ostheimer, *H. Fuhrer.*

From Athabaska valley, via Columbia glacier to Columbia icefield (see Route 2 under The Snow Dome). North Twin was ascended, following which Mt. Stutfield was reached from the summit of the latter (2 h. 10 m.). C. A. J. xvi, 20; H. M. i, 2, 48.

(Alternate routes will be found under Routes 1 and 3 for The Snow Dome.)

Terrace Mtn. (9570) (20)

(A) Four mi. W. of Mt. Saskatchewan; E. of Castleguard valley; head of Terrace creek. A. J. xxxv, 190; C. A. J. xiv, 39, 117; T., 77.

1923 first ascent by J. M. Thorington, *C. Kain.*

From camp on Castleguard meadows via S. glacier to col at head, between Terrace Mtn. and unnamed summit to S. (9350′). The S. E. arête is followed over shale and boulders to summit (Rope unnecessary; splendid views of Columbia icefield).

Ascent 3 h.

The Twins. (N. 12085; S. 11675) (23)

(Ar) N. Twin, third elevation of Canadian Rocky mountains. Five mi. N. of Mt. Columbia; five mi. S. of Mt. Alberta; between Columbia glacier and Habel creek. ABC, 63, 68; C., 120; O., 377.

North Twin: 1923 first ascent by W. S. Ladd, J. M. Thorington, *C. Kain.*

Route 1. From camp on Castleguard meadows by way of the shoulder of Mt. Castleguard (which see) to Columbia icefield. Round heads of Saskatchewan and Athabaska glaciers, cross W. slopes of The Snow Dome (avoiding crevasses at head of Columbia glacier), and skirt S. W. slopes of Mt. Kitchener. Then descend (100′) to snow col

at E. base of The Twins (10600'). Thence N. Twin is ascended over moderately steep snow (occasional step-cutting).

Ascent: Castleguard shoulder 2 h.; col at E. base of peak 8 h. 25 m.; summit 2 h. Descent; to col 1 h.; Castleguard shoulder 8 h.; camp 1 h. A. J. xxxv, 191, 197; C. A. J. xiv, 40; T., 77.

Route 2. 1924, F. V. Field, W. O. Field, L. Harris, *J. Biner, E. Feuz, Jr.* A variant of the above. From camp on Castleguard meadows to E. base of peak as in Route 1. The S. E. slopes of N. Twin were skirted and the col (11000') between N. and S. Twin attained. S. Twin (which see) was ascended, following which N. Twin was reached from the same col by its S. slopes (4 h. from summit of S. Twin). App. xvi, 146; xix, 243.

Ascent: Castleguard shoulder 2 h.; col at E. base of peak 6 h. 30 m.; col between peaks 1 h.; S. Twin 2 h. 30 m.; N. Twin 4 h. Descent to camp 8 h. (The above party crossed the icefield at night in order to obtain good snow conditions.)

Route 3. 1927, A. J. Ostheimer, *H. Fuhrer.* From Athabaska valley via Columbia glacier, bearing to couloir above its N. E. lateral moraine (1 h. 15 m.). Thence by cliff bands and couloirs, followed by steep snow (step-cutting) to level of Columbia icefield (9800'; 3 h. 45 m.). Névé is traversed to col at E. base (5 h.) and the objective peak ascended as in Route 1 (1 h. 45 m.). C. A. J. xvi, 20; H. M. i, 2, 48. (See also under Mts. Stutfield, Kitchener, and The Snow Dome.)

South Twin: 1924 first ascent by F. V. Field, W. O. Field, L. Harris, *J. Biner, E. Feuz, Jr.*

From camp on Castleguard meadows to E. base of massif (see Route 2 under N. Twin). The S. E. slopes of N. Twin are skirted and the col (11000') between N. and S. Twin attained; the objective peak is reached by the narrow N. snow arête.

Ascent: Castleguard shoulder 2 h.; col at E. base 6 h. 30 m.; col between peaks 1 h.; summit 2 h. 30 m. App. xvi, 146; xix, 243.

Unnamed. (N. E. 11300; S. W. 11200) (22)
(A-Ar) One mi. W. of Mt. Athabaska; between Athabaska and Saskatchewan glaciers.

Unnamed. (N.W. 10700; S.E. 10900) (22)
(Ar) One mi. N. of Mt. Stutfield; S. E. of Mt. Woolley; between head of Habel creek and Sunwapta river.

Unnamed. (10800) (22)
(A-Ar) Four mi. N. of Mt. Castleguard; four mi. S. E. of The Snow Dome; E. margin of Columbia icefield; between heads of Athabaska and Saskatchewan glaciers. App. xvi, 145.
1924 first ascent by F. V. Field, W. O. Field, L. Harris, *J. Biner, E. Feuz, Jr.*
From camp on Castleguard meadows over shoulder of Mt. Castleguard (which see) to Columbia icefield. Round head of Saskatchewan glacier and ascend objective peak via shale and snow of long S. arête.
Ascent 6 h. 30 m.

Unnamed *(Confederation).* (?10500) (Ost. 1927)
(Ar) E. of Athabaska river; three mi. above Chaba-Athabaska junction. C. A. J. xvi, 17; H. M. i, 2, 48.

Unnamed. (S.E. 10340; N.W. 10160) (23)
(Ar-P) Four mi. W. of Mt. King Edward; W. margin of Columbia icefield; head of Tsar creek. A snow pass (7300′) slightly more than one mi. to N. W. connects Athabaska river with Tsar creek. ABC, 77.

Unnamed. (10230) (23)
(Ar-P) Three mi. S. W. of Mt. King Edward; W. margin of Columbia icefield. ABC, 77.

Unnamed. (10000) (23)
(Ar-P) Two mi. S. W. of Mt. King Edward; W. margin of Columbia icefield. ABC, 77.

Unnamed *(Little Alberta).* (9700) (23)
(Ar) S. E. of Mt. Alberta; at head of Habel creek. A. J. xxxvii, 315; App. xix, 245, 400.
1924 first ascent by J. W. A. Hickson, H. Palmer, *C. Kain.*

From camp at head of Habel creek via couloirs near middle of W. face, direct from the glacier. Summit was traversed and descent made of S. W. slopes to waterfall.

Ascent from glacier 3 h.; descent to camp 2 h. 10 m.

Mt. Woolley. (11170) (22)

(Ar) Two mi. N. E. of Mt. Alberta; between head of Habel creek and Sunwapta river. ABC, 66; A. J. xxxvii, 375; App. xix, 410; C., 127; O., 434.

1925 first ascent by S. Hashimoto, H. Hatano, T. Hayakawa, Y. Maki, Y. Mitai, N. Okabe, *H. Fuhrer, H. Kohler, J. Weber.*

From camp on meadows (6800') at the head of Habel creek, via the S. W. glacier and slopes.

Ascent 7 h.; descent 3 h. 20 m.

SECTION XIX

Head of Athabaska River to Fortress Lake Pass

CHABA GROUP

The peaks in this group lie W. of Athabaska river, along the Athabaska-Chaba watershed and along the Divide rounding the Chaba icefield. The arbitrary E. limit, from which the group is separated from the Columbia icefield, is the low glacial pass (7300′) connecting the W. terminal fork of Athabaska river with the head of Tsar creek, the pass being five miles due W. of Mt King Edward. The peaks are nearly all accessible from Chaba river, Mt. Chaba (10540) and Dais Mtn. (10612) being among the most important.

Fortress Lake pass (4387′; Chaba river to Fortress lake) may be reached in three days by outfits from Jasper: (1) Athabaska falls; (2) Ranger creek or confluence of Sunwapta and Athabaska rivers; (3) Chaba river and Fortress lake.

Many of the peaks of the Chaba rim form the N. E. retaining wall of the Clemenceau icefield, and are equally accessible from the latter basin although the difficulties of approach are somewhat greater.

The head of Chaba river was first explored by Jean Habel, in 1901 (App. x, 28), who reached the Athabaska from Lake Louise by way of Bow and Sunwapta passes.

Map reference: Clemenceau Icefield (C. A. J. xvi, 42) by A. J. Ostheimer, 1927.

Chaba Peak. (10540) (23)

(Ar-P) Three mi. S. W. of Sundial Peak; head of (E.) Chaba glacier (Chaba river). ABC, 72, 78. (See also under Unnamed, 10300'.)

Dais Mtn. (10612) (23)

(Ar) W. angle between Warwick creek and Athabaska river; three mi. E. of Chaba river. ABC, 68, 71; C. A. J. xvi, 18; H. M. i, 2, 48.

1927 first ascent by A. J. Ostheimer, *H. Fuhrer.*

From camp in Athabaska valley at mouth of Lynx creek; cross river and ascend slide to meadows at timberline (7300'; 2 h.). Cross E. glacier and S. E. shale shoulder to S. glacier. Cross schrund and ascend steep snow, working into conspicuous couloir from which the upper portion of the S. arête is reached and followed to summit.

Ascent: to bergschrund of S. glacier 8 h.; summit 2 h. 30 m.

Listening Mtn. (10330) (24)

(Ar) N. margin of Chaba icefield; between terminal forks of Chaba river. ABC, 71, 78.

Mt. Quincy *(Blackfriars).* (10400) (24)

(Ar) Three mi. S. E. of Fortress Lake pass (Chaba river to Fortress lake). ABC, 68, 73; App. x, 32; C. A. J. xvi, 22; H. M. i, 2, 50.

1927 first ascent by A. J. Ostheimer, *H. Fuhrer, J. Weber.*

From camp at Fortress Lake pass cross to E. bank of Chaba river; follow up river for one mi. and ascend to cirque immediately S. of Mt. Quincy. Cross shale bands to head of cirque (8500'; 5 h. 30 m.) and ascend left-hand of two conspicuous couloirs, gaining elevation on ledges and snow slopes. Then ascend right-hand of two couloirs leading to summit arête (2 h. 15 m.). Cross snow and rock to W. and highest point (15 m.).

Descent to timberline 2 h. 15 m.

Sundial Peak (10438) (23)

(Ar) Three mi. N. E. of Chaba Peak; two mi. E. of Chaba glacier. ABC, 57, 71, 72; C. A. J. xvi, 19; H. M. i, 2, 48.

1919 first ascent by the Boundary Commission.

From camp at tongue of Chaba glacier ascend E. lateral moraine for two mi. whence the objective peak is reached by its W. slopes over scree and snow. (It is possible to follow the main S. glacier to its terminus in the W. fork of Athabaska river.)

Unnamed *(Franklin).* (10580) (24)

(Ar-P) One and one half mi. N. E. of Mt. Brouillard; between head of Chisel creek and W. fork of Chaba river. ABC, 78; C. A. J. xvi, 27; H. M. i, 2, 52.

1927 first ascent by W. R. Maclaurin, A. J. Ostheimer, *H. Fuhrer.*

The ascent was combined with that of Mt. Brouillard (which see). From summit of latter the S. E. arête is followed into a col at the head of the N. glacier (Chisel creek). Névé is traversed and the objective peak ascended by its shaly S. arête. Ascent from Mt. Brouillard 2 h. 15 m.

[This peak is suggested by the Boundary Commission as Habel's Mt. Eden, objections to which are outlined under Unnamed 10300', Chaba group.]

Unnamed *(Chaba).* (10300) (23)

(Ar) One mi. N. E. of (the present) Chaba Peak; two mi. S. W. of Sundial Peak. App. x, 34; O., 434.

1901 first ascent by D. Campbell, J. Habel, (?) F. Stephens.

From camp at tongue of E. Chaba glacier (Habel's Eden glacier) via the glacier and its E. lateral moraine and the subsidiary glacier entering the basin from S. E. (Habel's Chaba glacier). "After three hours we left the Eden glacier, climbed the big moraines which separate it from a right side glacier sloping down from Mt. Chaba—the Chaba glacier—and roped up on the latter forty minutes later. . . . From the depression between Mt. Eden and Mt. Chaba (9245') we turned to the left, up the southwestern slope of the latter."

Ascent 7 h. 30 m.; descent 5 h.

[It is evident that this peak is Habel's Mt. Chaba and that the Chaba Peak of the Boundary Commission is Habel's Mt. Eden. Habel named the W. Chaba glacier and the range

at its head for Coleman. Hence the suggestion of the Boundary Commission that Point 10580', N. E. of Mt. Brouillard, might be Habel's Mt. Eden is inconsistent with the facts.]

Unnamed *(Blackfriars).* (?10300) (Ost. 1927)

(Ar) W. angle between Quincy creek and Athabaska river; two mi. E. of Mt. Quincy. H. M. i, 2, 47.

Unnamed *(Wales).* (10200) (23)

(Ar-P) One mi. S. E. of Chaba Peak; between Chaba icefield and Athabaska river. ABC, 77; C. A. J. xvi, 40; H. M. i, 2, 58.

1927 first ascent by J. DeLaittre, W. R. Maclaurin, *J. Weber.*

From camp at tongue of E. Chaba glacier ascend glacier and icefall; cross snow pass (9700') W. of Chaba Peak (which see) and gain objective peak over W. snow slopes.

Unnamed. (10200) (23)

(Ar) One mi. S. W. of Warwick Mtn.; two mi. E. of Sundial Peak.

Unnamed *(Massey).* (9600) (23)

(Ar) S. angle between Quincy creek and Athabaska river; three mi. N. E. of Dais Mtn. C. A. J. xvi, 18; H. M. i, 2, 48.

1927 first ascent A. J. Ostheimer, *H. Fuhrer.*

From camp in Athabaska valley at mouth of Lynx creek; cross river and ascend slide to meadows at timberline. Continue upward over rock to reach S. E. arête (8800'; 4 h. 15 m.); thence to summit (1 h. 15 m.).

Unnamed *(Chaba-Clemenceau Divide).* (24)

(Ar-P) Here are grouped the unnamed points on the retaining wall between Chaba and Clemenceau icefields, the Divide from Chaba Peak as far as Mt. Brouillard, an airline of nine mi. ABC, 78; C. A. J. xvi, 31, 36, 37, 41; H. M. i, 2, 53. 55.

Midway in its course, this section of the Divide passes within one mi. of Apex Peak (which see; Wood River group), a peak which serves as convenient reference point for the ascents mentioned below, all of which have thus far been made from the Clemenceau basin:

1 In 1927, from a camp at timberline on the W. slopes of Mt Brouillard, Point 10200′ (Amundsen) was ascended by J. DeLattre, W. R. Maclaurin, by way of its N. W. glacier (4 h. 50 m.). This summit lies two mi. S. of Mt. Brouillard.

2 In 1927, from a camp on the E. moraine of Clemenceau glacier, the col between Apex Peak and the Divide was reached by its N. glacier by A. J. Ostheimer, *H. Fuhrer* (3 h. 15 m.). They next ascended Point 10340′ (Younghusband) a half mi. to N. (2 h. 15 m.), returned and traversed the head of the icefield for one mi. S. E., regaining the crest by a broad snow couloir, and ascending Point 10330′ (Walcott) by rock and snow of its E. arête. Point 10150′ (Lawrence), rising but slightly above the Divide, was next crossed S. E. and Point 10420 (Gray) ascended. The latter is three mi. S. E. of Apex Peak. Ascent 11 h. 30 m. from camp; return via snowfield and Apex E. col, 4 h.

3 In 1927, from a camp on the E. moraine of Clemenceau glacier, the Apex E. col was crossed by D. Hoover, A. J. Ostheimer, *H. Fuhrer*, who then proceeded three mi. S. E. to the base of Point 10310′ (Noel), which was ascended by Ostheimer and *Fuhrer* in 30 m. via a wide snow couloir and the W. arête leading from Point 10420′ (Gray). Ascent from camp 6 h. 15 m. Descent was made to E. and Chaba glacier descended, making the first traverse from the Clemenceau to the Chaba basin.

4 In 1927, from a camp on the E. moraine of Clemenceau glacier, the Apex-Duplicate col was crossed by A. J. Ostheimer, *H. Fuhrer*, *J. Hecher* and Point 10100′ (Norton, see under Wood river group) ascended. Following this, the icefield was crossed to Point 10470′ (Dyer) lying three mi. due E. and ascended by its N. arête. Ascent from camp 12 h.

Warwick Mtn. (9535) (23)

(Ar) S. W. angle between Athabaska river and Warwick creek. ABC, 58, 67, 68, 70.

1919 first ascent by the Boundary Commission.

From camp at upper forks of Athabaska river (stream from Columbia glacier) by way of the S. E. slopes.

SECTION XX

WOOD RIVER GROUP

The domain included under this heading lies on the British Columbia (P) slope, immediately W. of the Chaba group, and occupies the S. E. angle between Fortress lake and Wood river. The S. boundary is defined by Sullivan river, tributary to the Columbia.

Slightly more than two miles below the W. end of Fortress lake, Wood river receives the tributary of Clemenceau creek, draining the wide ice-bound area surrounding Mt. Clemenceau (12001) the highest peak of the area and the fourth elevation of the Canadian Rocky mountains. Three main flows of ice join to form Clemenceau glacier; one from the icefield between Mt. Clemenceau and Tusk peak; a second, from between Tusk peak and Mt. Duplicate; and the third from the basin between Mt. Duplicate and Ghost Mtn.

The Clemenceau icefield, containing some forty square miles, drains on the S. to Cummins and Tsar creeks, the latter a source of Sullivan river which joins the Columbia a short distance above Kinbasket lake. Midway between the two streams, eighteen miles S. of Fortress lake, rises Mt. Tsar (11232), loftiest peak of this section of the group. The base level of the valleys approximates 3500′ so that the general relief is uncommonly great.

The narratives of early travellers on the Columbia river make no mention of this great mountain mass, and the existence of Mt. Clemenceau was unknown until the expedition of Coleman which, in 1892, penetrated the valley of Chisel creek and ascended Misty Mtn., the peak now known as Mt.

Brouillard. From its summit the climbers commanded a view of Mt. Clemenceau which they named The Pyramid.

It was not until 1920 that the Clemenceau basin was reached, the Boundary Commission penetrating to it by way of the difficult valley of Clemenceau creek, which was followed up from Wood river. In 1922 the expedition of A. Carpe, H. S. Hall and H. B. de V. Schwab, evolved a route from the W. end of Fortress lake across a high shoulder of Ghost Mtn. with descent to the Clemenceau glacier, which has been followed by subsequent climbing parties.

Map reference: Clemenceau Icefield (C. A. J. xvi, 42; H. M. i, 2, 58), by A. J. Ostheimer, 1927.

Apex Peak. (10600) (24)

(P) N. E. of Mt. Duplicate; N. E. angle of Clemenceau névé. C. A. J. xiii, 90; xvi, 27; H. M. i, 2, 52.

1922 first ascent by A. Carpe, H. S. Hall.

From camp at tongue of Clemenceau glacier by way of the glacier and the snow pass between Mt. Duplicate and the objective peak. The névé is then descended for a short distance to S., to avoid crevasses, thence swinging E. and N. to gain the peak over steep scree, rock and snow.

Ascent 7 h. 10 m.

Mt. Brasseur Croche. (10781) (Ost. 1927)

(P) S. W. angle between Clemenceau creek and Wood river. ABC, 89, 90; C. A. J. xiii, 83; xvi, 35; H. M. i, 2, 53.

1927 first ascent by A. J. Ostheimer, *H. Fuhrer.*

From bivouac on N. moraine of glacier draining to Clemenceau creek immediately N. of Mt. Clemenceau. The S. glacier is crossed (1 h.), shale, snow and broken chimneys leading thence to highest rocks (10650′; 5 h. 45 m.), whence the icy summit is reached in 20 m. The highest point is at the extreme E. end. (Rope necessary above 10400′.)

Ascent 7 h. 5 m.; descent 3 h.

Mt. Brouillard *(Misty).* (10050) (24)

(P) Two mi. S. E. of Ghost Mtn.; two mi. N. E. of Clemenceau glacier; the N. glacier is the source of Chisel creek (Fortress lake). ABC, 75; C. A. J. xvi, 26; Co., 153; H. M. i, 2, 52.

1892 first ascent by A. P. Coleman, L. Q. Coleman, L. B. Stewart.

Route 1. From camp at head of Chisel creek over the moraine-covered glacier, avoiding crevasses by keeping toward the W. side. Steep snow and rock are then ascended to the summit.

Route 2. 1927. W. R. Maclaurin, A. J. Ostheimer, *H. Farrer*. From camp at Clemenceau tongue, the glacier entering the valley from the S. W. side of the objective peak is ascended to its bounding ridge (8000'; 2 h.), crossing into the wide rock and snow couloir and reaching the crest of the W. arête (9900'; 2 h. 30 m.) whence the summit is easily reached (15 m.).

Ascent 6 h. 30 m.

[The ascent was combined with that of Unnamed 10580' (Franklin) one and one half mi. to N. E. See under Chaba group.]

Chisel Peak. (10005) (24)

(P.) S. W. angle Chisel creek and Fortress lake. ABC, 74, 85; T., 197.

1920 first ascent by the Boundary Commission.

From camp at lower end of Fortress lake.

Mt. Clemenceau *(Pyramid).* (12001) (Ost. 1927)

(P.) Fourth elevation of Canadian Rocky mountains; five mi. S. of Mt. Bras Croche, culminating the area in the S. angle between Clemenceau creek and Wood river. ABC, 89; A. J. xxxv, 44, 298; App. xvii, 413; C. A. J. xiii, 79; xiv, 18; xxi, 28; Co., 155; H. M. i, 2, 52; T., 92, 194, 288; W., 164.

1923 first ascent by D. B. Durand, H. S. Hall, W. D. Harris, H. B. deV. Schwab.

From camp on E. moraine of Clemenceau (one mi. above terminus) a bivouac was established (7250') on a wide shelf just above the lateral moraine at foot of S. E. buttress of Mt. Clemenceau opposite Tusk Peak. The ascent was made by the large glacier on the S. W. side of the mountain (step-cutting) to the deep upper plateau, and by steep snow to a rock outcrop on the W. subsidiary ridge (10900'; 4 h. 55 m.). Thence N. E. by snow slopes to a terrace

below the final cliffs, and N. along this to the main N. W. arête whose corniced crest was followed to the summit (2 h. 15 m.).

Ascent from bivouac 7 h. 15 m.; descent 3 h. 30 m.; to base camp 2 h. 30 m.

1927, W. R. Maclaurin, A. J. Ostheimer, *H. Fuhrer.* Ascent repeated by same route, but direct from base camp. Ascent 9 h. 30 m.; descent 5 h. 30 m.

[The mountain was first seen in 1892 by A. P. Coleman, L. Q. Coleman, L. B. Stewart from the summit of Mt. Brouillard. Coleman sketched the peak and named it Pyramid.]

Mt. Duplicate. (N.E. 10100; C. 10300; S.W. 10200) (24)

(P) One mi. N. E. of Mt. Shackleton; W. of snow pass at head of Clemenceau glacier. ABC, 90; C. A. J. xiii, 87; xiv, 23; xvi, 27.

Ghost Mtn. (10512) (24)

(P) Four mi. S. W. of Chisel Peak; at heads of Ghost creek (Wood river) and Chisel creek (Fortress lake). ABC, 90; C. A. J. xiv, 31; xvi, 25, 42; H. M. i, 2, 55.

1923, incomplete ascent by D. B. Durand, H. S. Hall, who reached 10150′ on the S. arête by way of the Brouillard-Ghost col.

1927 first ascent by A. J. Ostheimer, *H. Fuhrer.*

Route 1. From camp at timberline in Clemenceau valley over rock and snow of N. W. arête (9100′; 1 h. 30 m.). Turn S. and traverse along and up ledges of W. face, regaining the arête at 9500′ (1 h. 45 m.). Steep snow (step-cutting) to summit (1 h.).

Ascent 4 h. 15 m.; descent 3 h. 15 m.

Route 2. 1927, W. R. Maclaurin, *J. Weber.* By the S. arête (Durand-Hall attempt). The first prominent gendarme is passed on the E. side and rope used from point 10150′. The steep narrow arête is followed to the summit.

Ascent 6 h. 40 m.

Mt. Shackleton. (10800) (24)

(P) One mi. S. W. of Mt. Duplicate; S. E. of Tusk Peak; S. W. margin of Clemenceau icefield. C. A. J. xiii, 87; xiv, 26.

Mt. Tsar. (11232) (Ost. 1927)

(P) Five mi. S. of Mt. Clemenceau; fifteen mi. W. of Mt. King Edward; S. margin of Clemenceau icefield; between Tsar and Cummins creeks (Columbia river drainage). ABC, 89; A. J. xxxix, 63; App. xvii, 422; C. A. J. xiii, 91; xvi, 38; H. M. i, 2, 55; Sportsman, Oct., 1927.

1927 first ascent by A. J. Ostheimer, *H. Fuhrer, J. Weber.*

From Invonac eleven mi. S. E. of Mt. Clemenceau, at head of Tsar creek, three mi. N. E. of objective peak. Ascend medial moraine to glacial pass immediately N. of the mountain (2 h. 15 m.), crossing to N. W. rock ridge which is gained at 8300′ (1 h.). This is followed to 8500′ (30 m.); descend loose shale to a secondary glacier (15 m.), where rope becomes necessary. The ice and snow of the face is then ascended (step-cutting) to a broad snow saddle (10200′; 2 h.) and the N. W. arête followed to the summit (1 h. 45 m.).

Ascent 8 h. 45 m.; descent 4 h. 45 m. On following day return was made to camp on E. moraine of Clemenceau glacier in 8 h.

Tusk Peak. (?10960) (Ost. 1927)

(P) Three mi. S. E. of Mt. Clemenceau; W. of Mt. Duplicate; head of Clemenceau glacier. ABC, 90; A. J. xxxvi, 127; App. xvii, 416; C. A. J. xiii, 87; xiv, 21; xvi, 33; H. M. i, 2, 53.

1927 first ascent by J. DeLautre, W. R. Maclaurin, A. J. Ostheimer, *H. Fuhrer.*

From camp on E. moraine of Clemenceau glacier by way of the lateral glacier between Mt. Duplicate and Tusk Peak. The difficult icefall once passed an ascent was made of Unnamed 10060′ (Irvine), which see. From the summit of the latter the ridge is followed toward Tusk Peak, a secondary S. W. arête of the objective peak being gained over snow and a 40′ chimney. The summit is thence reached without difficulty (1 h. 15 m.).

Ascent 7 h.; descent (rounding peak on W. and N. to glacier between Tusk Peak and Mt. Clemenceau) 6 h. 30 m.

Unnamed *(Bruce).* (?10190) (Ost. 1927)

(P) Five mi. N. W. of Mt. Clemenceau; three mi. E. of Wood river. C. A. J. xiv, 27; xvi, 35; H. M. i, 2, 52.

1927 first ascent A. J. Ostheimer, *H. Fuhrer.*

From bivouac on N. moraine of glacier immediately N. of Mt. Clemenceau, by E. glacier and E. arête of objective peak [see under Unnamed 10680′ (Farrar) and Unnamed 10710′ (Mallory) with which this ascent was combined].

Ascent 1 h. 30 m. from bergschrund.

Unnamed *(Farrar).* (?10680) (Ost. 1927)

(P) Three mi. S. of Mt. Bras Croche; W. of Clemenceau creek. C. A. J. xiv, 27, 30; xvi, 34; H. M. i, 2, 53.

1927 first ascent by A. J. Ostheimer, *H. Fuhrer.*

From bivouac on N. moraine of glacier draining to Clemenceau creek immediately N. of Mt. Clemenceau. Ascend glacier (bergschrund) to col W. of objective peak (2 h. 10 m.) and follow narrow N. E. arête to summit (2 h.). [Ascent was combined with Unnamed 10710′ (Mallory) and Unnamed 10190′ (Bruce), which see.]

Unnamed *(Irvine).* (?10060) (Ost. 1927)

(P) One mi. S. W. of Tusk Peak; two mi. N. W. of Mt. Shackleton; head of Cummins creek. C. A. J. xvi, 33; H. M. i, 2, 53.

1927 first ascent by J. DeLaittre, W. R. Maclaurin, A. J. Ostheimer, *H. Fuhrer.*

From camp on E. lateral moraine of Clemenceau glacier by way of the lateral glacier between Mt. Duplicate and Tusk Peak. The difficult icefall once passed, the objective peak may be ascended by its shaly E. cliffs. (Ascent combined with that of Tusk Peak, which see.)

Ascent 5 h.

Unnamed *(Mallory).* (?10710) (Ost. 1927)

(P) One mi. N. W. of Unnamed 10680′ (Farrar); two mi. S. of Mt. Bras Croche. C. A. J. xiv, 27; xvi, 34; H. M. i, 2, 52.

1927 first ascent by A. J. Ostheimer, *H. Fuhrer.*

From bivouac, on N. moraine of glacier immediately N. of Mt. Clemenceau, to W. arête [see under Unnamed 10680′

(Farrar), with which this ascent was combined], which is followed to objective summit.

Unnamed *(Norton).* (10100) (24)

(P) Clemenceau icefield; a ridge rising slightly above the névé, one mi. S. of Apex Peak. C. A. J. xvi, 37.

1927 first ascent by A. J. Ostheimer, *H. Fuhrer, J. Weber.* From a camp on the E. moraine of Clemenceau glacier the Apex-Duplicate saddle was crossed and the mountain ascended by its N. snow ridge.

Ascent 6 h. 15 m.

Unnamed *(Odell).* (?10300) (Ost. 1927)

(P) Two mi. S. W. of Mt. Tsar; W. of head of Tsar creek.

Unnamed *(Peary).* (10200) (24)

(P) Two mi. S. of Mt. Broullard; immediately W. of Point 10280′ (Amundsen). C. A. J. xvi, 30, 36; H. M., i, 2, 52, 55.

1927 first ascent by J. DeLaittre, A. J. Ostheimer, *H. Fuhrer.* From camp on E. moraine of Clemenceau glacier by way of the glacial basin S. of the peak, gaining the W. arête and following it to the summit over shale and snow.

Ascent 5 h. 15 m.

Unnamed *(Somervell).* (?10050) (Ost. 1927)

(P) Three mi. N. of Mt. Tsar; head of Tsar creek.

Unnamed *(Stanley).* (?10350) (Ost. 1927)

(P) Three mi. S. W. of Mt. Shackleton; S. margin of Clemenceau icefield. Three summits, the highest of which lies to N. E.; central Point 10310′ (Livingstone) and S. W. Point 10250′ (Rhodes). C. A. J. xvi, 40; H. M. i, 2, 56.

Point 10310′: 1927 first ascent by D. Hoover, A. J. Ostheimer, *H. Fuhrer.*

From camp on E. lateral moraine of Clemenceau by way of the lateral glacier between Mt. Clemenceau and Tusk Peak. The glacial pass at its head is crossed, the W. slopes of Tusk Peak rounded and descent made toward head of Cummins creek (5 h. 30 m.). The objective peak may be

attained by steep broken rock of W. arête (5 h.). The highest point was not reached.

Unnamed *(Tordu).* (?10660) (Ost. 1927)
(P) One mi. W. of Mt. Shackleton; two mi. S. of Tusk Peak. A. J. xxxvi, 127; C. A. J. xiv, 22; xvi, 41.

SECTION XXI

The Athabaska-Brazeau Divide

MALIGNE LAKE GROUP

The area includes scattered peaks in the extensive district E. of Athabaska river and its Sunwapta tributary, N. of Brazeau river as far as the line of the Canadian National railroad. For the most part it lies from fifteen to eighteen miles E. of the Divide, entirely on the Alberta slope, along the irregular Saskatchewan-Athabaska (A-Ar) watershed, separating Brazeau (A) river from Rocky (Ar) and McLeod (Ar) rivers. The section is noteworthy as containing some of the most beautiful lakes in the Canadian Rocky mountains, one, Maligne being the largest in the range, thirteen miles long and upwards of a mile wide. Maligne river, rising at Maligne pass (6800′) thirteen miles S. of the lake, enters it about five miles from the lower end. The stream emerging from the lake flows eight miles N. to Medicine lake, a sheet of water four miles long, bordered on the E. by jagged limestone peaks. The lake has no visible outlet, Maligne river flowing underground (except in times of flood) for nine miles before reappearing in its remarkable canyon (180′ in depth) and debouching into the main Athabaska valley.

The highest peak of the region, Mt Brazeau (11380) stands S. E. of Maligne lake at the head of Brazeau icefield, estimated to contain thirty two square miles. The important peaks of the region are situated in this vicinity and may be approached from camps at the S. E. extremity of Maligne lake.

Trail distances: Jasper to Medicine lake, nineteen miles; Medicine lake to Maligne lake, nine miles; Maligne lake, over Shovel pass (7500′) to Jasper, thirty miles.

Map references: Maligne lake and adjacent mountains (A. A. J. i, 58), by A. Carpe, 1924. Maligne Lake group (A. J. xli, 340), by M. M. Strumia, 1929.

Maligne lake may be reached in a single day from Jasper: Motor from Jasper to Medicine lake. With outboard motor-boat, visitors are transported across the lake at the head of which there is a permanent chalet. A road leads for eight miles to Maligne Lake chalets, from which it is possible to cross Shovel pass (camp in summer) to the Athabaska valley and reach Jasper. Outboard motor-boats are available on Maligne lake and are useful in establishing camps at its head.

Terminal branches of Sunwapta river are connected with Brazeau river by way of Jonas and Poboktan passes, while trails from the head of Brazeau river connect with Wilcox and Nigel passes, affording routes to the groups along the N. Saskatchewan river.

As early as 1800 Duncan McGillivray (Bras Croche) crossed from Brazeau lake to Athabaska river, possibly by Poboktan pass. The Mt. McGillivray of Arrowsmith's map (1862) accompanying D. G. F. MacDonald's "British Columbia" appears to be identical with the present Mt. Brazeau. Maligne river is shown by this name on Waddington's map of 1868 (Proc. R. G. S. xxxviii, 118), and Maligne lake was visited by H. A. F. MacLeod as early as 1875 (see map accompanying Sandford Fleming's "Report on Surveys for the C.P.R.," Ottawa, 1877).

In 1902 A. P. Coleman reached Brazeau lake and attained an elevation above 10500′ on the Brazeau snowfield.

The imperfectly-mapped country E. of Maligne lake was traversed in 1859 by Lord Southesk, who ascended Embarras river and the head of McLeod river, thence crossing a low divide to Rocky (Medicine Tent) river. Near the source of the latter he built Southesk Cairn at an elevation of 8330′. The route then followed Brazeau river, up Job creek and down Coral creek to Kootenay Plain and the North

Saskatchewan. Siffleur river was then ascended to Pipestone pass, and Pipestone and Bow rivers descended. Mountain names given by Southesk are Cheviot, Lindsay, and Dalhousie. A mountain about five mi. S. W. of Southesk Cairn was reserved for his own name. (G. J. xiii, 337, 546; lxvi, 246.)

Map references: Sheet 45 (Jasper), Standard Series, 1926. Sheet 208A (Mountain Park), Geological Survey, 1929.

Balcarres Mtn. *(Lindsay).* (9506) (GSC 208A)

(Ar) S. E. angle between Medicine tent (Rocky) river and restless river.

Mt. Balinhard. (10270) (GSC 208A)

(Ar) S. W. angle between Balinhard creek and Restless river; a snowfield on the N. W. slopes drains to Rocky river; the peak appears to be the highest in the S. E. angle between Medicine Tent and Rocky rivers.

Blackface Mtn. (9407) (GSC 208A)

(A-Ar) Between head of Cardinal river and Blackface creek (Rocky river); S. E. of Climax Mtn.

1921 first ascent by the Geological Survey.

Mt. Brazeau. (11380) (Carpe, 1924)

(A-Ar) Highest peak of Maligne group; S. of Maligne lake and Mt. Warren; E. of Coronet valley. A. A. J. i, 1, 54; A. J. xxxvi, 105; G. J. xxi, 502; Co., 229.

1928 first ascent by A. Carpe, W. D. Harris, H. Palmer.

The S. col is reached after traversing Mts. Henry MacLeod and Valad (which see). From this point (9990') the summit is attained by a direct route up the snow of the face.

Ascent from col 1 h. 50 m; descent (summit to Mt. Henry MacLeod) 3 h.; total time from camp 19 h. 50 m.

Mt. Charlton. (10450) (Strumia, 1929)

(Ar) The E. peak of the Unwin-Charlton massif; W. shore of Maligne lake. A. A. J. i, 1, 48; A. J. xxxvi, 114; xl, 382; xli, 345; C. A. J. xvii, 22.

1928 first ascent by W. R. Hainsworth, M. M. Strumia.

From small bay at delta of stream from Charlton glacier, half mi. through timber to steep lateral moraine on E. side of N. glacier between Mts. Unwin and Charlton. The

moraine is followed to bare ice above and the glacier crossed to its W. side. Crevassed snow is followed (avalanche traces) through gap between a central buttress and the walls of Mt. Unwin to a higher basin with bergschrund and steep slopes leading to Unwin-Charlton col (10000'). Thence by easy W. snow arête to summit.

Ascent from lake 6 h.; descent 2 h. 45 m.

Climax Mtn. (9200) (GSC 208A)

(A-Ar) A subsidiary eminence on the N. W. arête of Blackface Mtn.; one mi. S. W. of Prospect Mtn.

Coronet Peak. (?9800) (Carpe, 1924)

(Ar) S. E. of Replica Peak; S. W. of Mt. Henry MacLeod. A. J. xxxvi, 102, 115.

Dalhousie Mtn. (9668) (Standard 45)

(A) Highest point in range in S. angle between Southesk and Brazeau rivers.

1928 first ascent by the Topographical Survey.

A long, easy walk.

[See Southesk (1875), frontis. The point sketched rises above Brazeau river to an elevation of 9210'; the highest point is two mi. to N. W.]

Deception Mtn. (9200) (GSC 208A)

(Ar) Between Rocky river and head of Cardinal river; one mi. N. W. of Mt. Lindsay.

Excelsior Mt. (9100) (Standard 45)

(Ar) N. of Centre Mt. (8800) and between it and Maligne river; E. of Mt. Tekarra (8818). C. A. J. iv, 72; J. P., 64, 83.

1915 first ascent by the Topographical Survey.

May be ascended in 5 h. from a camp at timberline on N. side; reached by way of Maligne gorge and Signal Mt. trail.

Mt. Frances. (?9000)

(A) N. W. of pass between N. W. fork of Cataract river and Brazeau river. G. J. xxi, 505.

1902 first ascent by A. P. Coleman, L. Q. Coleman.

Helmet Mtn. (9482) (GSC 208A)

(Ar) N. W. angle between Helmet creek and S. fork of Rocky river.

Mt. Henry MacLeod. (?10600) (Carpe, 1924)
(A-Ar) S. of Maligne lake; head of Coronet creek; S. of Mt. Valad. A. J. xxxvi, 103.
1923 first ascent by A. Carpe, W. D. Harris, H. Palmer.
At head of Coronet valley two glaciers descend from the objective peak. The higher tongue (7100') is ascended over easy snow, over a mile of rising névé, a steep couloir (sliding stones) leading to the final ridge. Mt. Brazeau (which see) may thence be reached over the intervening eminence of Mt. Valad.
Ascent 7 h.

Mt. Kerkeslin (*Mystery*). (9700) (Standard 45)
(Ar) E. of Athabaska river; S. of Mt. Hardisty (8900); near Athabaska falls. A. J. xxvi, 386; C. A. J. iv, 11, 71; J. P. 20, 40, 90.
1926 first ascent by F. H. Slark, *J. Weber.*
Via the N. ridge and N. E. face.

Mt. Lagrace. (9400) (GSC 208A)
(A-Ar) Between Medicine Tent (Rocky) river and Ruby creek (Cardinal river); two mi. N. W. of Mt. McBeath.

Mt. Leah. (9000) (Strumia, 1929)
(Ar) N. E. shore of Maligne lake; N. of Mt. Sampson. C. A. J. xviii.
1926 first ascent by Miss R. Beaubert, *J. Weber.*
From Maligne lake camp through woods and steep grass and scree to W. face and S. W. ridge.
Ascent 8 h.; descent 4-5 h.

Mt. Lindsay. (9061) (GSC 208A)
(Ar) N. W. angle between Deception creek and Rocky river; one mi. S. E. of Deception Mtn.

Mt. Llysyfran. (?9000)
(Ar) An outlying peak of Mt. Mary Vaux; between the latter and Maligne lake.

Mt. Mackenzie. (9067) (GSC 208A)
(A) S. W. angle between Cardinal river and Toma creek; five mi. S. of Mountain Park, C.N.R.
1921 first ascent by the Geological Survey.

Mt. McBeath. (9334) (GSC 208A)
(A-Ar) Between Medicine Tent (Rocky) river and Ruby creek (Cardinal river); two mi. S. E. of Mt. Lagrace.

Mt. Maligne. (?10000)
(Ar) Highest peak of group E. of Maligne lake; between Mt. Sampson and head of Southesk river.

Mt. Mary Vaux *(Rock Tower).* (?10250) (Carpe, 1924)
(Ar) N. of Replica Peak; between Coronet creek and Maligne river. A. J. xxxvi, 101; Trail and Timberline lxxiii (1924), 2.
1923 first ascent by Miss M. Blakeslee, B. Herzberg, D. Sutherland, Miss E. J. Widdecombe.
From W. by the broad back sloping down to Maligne river.

Mt. Meda. (9527) (GSC 208A)
(Ar) One mi. E. of Mt. Balinhard; between the latter and Medicine Tent (Rocky) river.
1921 first ascent by the Geological Survey.

Nigel Peak. (10535) (22)
(A-Ar) Two mi. N. of Sunwapta pass; W. buttress of Nigel pass (N. Saskatchewan to Brazeau river). ABC, 56, 66; G. J. xxi, 588.
1919 first ascent by the Boundary Commission.
From Wilcox pass by way of N. W. ridge.

Opabin Mtn. (10174)
(A) Highest peak above Opabin creek, a short distance S. of Brazeau river.

Mt. Poboktan. (10902) (Standard 45)
(A-Ar) Head of Poboktan creek (Sunwapta river).
1928 first ascent by the Topographical Survey.

Prospect Mtn. (9040) (GSC 208A)
(A-Ar) Within N. terminal forks of Cardinal river; one mi. N. E. of Climax Mtn.; five mi. W. of Mountain Park, C.N.R.

Rajah Mtn. (9870)
(Ar) Lat. 53° 15′, Long. 117° 33′.

Ranee Mtn. (9641)

(Ar) Lat. 53° 15', Long. 117° 34'.

Replica Peak. (?9150) (Strumia, 1929)

(Ar) Four mi. S. of Maligne lake, between Mt. Mary Vaux (Rock Tower) and Coronet Peak. A. J. xxxvi, 101.

1923 first ascent by A. Carpe, W. D. Harris, H. Palmer.

From S. end of Maligne lake to camp 4 mi. up Coronet creek. The peak is ascended from N. up a bank of cliffs, past a small lake to snow slopes leading to the summit.

Ascent 3 h.

Ruby Mtn. (9500) (GSC 208A)

(A) E. of terminal branches of Ruby creek (Cardinal river); two mi. N. W. of Thistle Mtn.

Mt. Russell. (9400) (GSC 208A)

(A) In terminal forks of Russell creek (Cardinal river); one and a half mi. N. E. of Mt. Toma.

Mt. Sampson. (10091) (Strumia, 1929)

(Ar) E. shore of Maligne lake. A. A. J. i, 1, 51; A. J. xl, 382; xlv, 347; C. A. J. iv, 77, 94; xvii, 24; G. J. xxxix, 380.

1928 first ascent by W. R. Hainsworth, M. M. Strumia.

From lake shore one and a half mi. W. of summit, over the first rock slide of the S. E. face, by scree and narrowing ledges, ascending diagonally across the W. face and keeping below the crest of the N. W. aréte (rope at 9200') until the easier summit slopes are attained.

Ascent 5 h. 15 m.; descent 3 h. 15 m.

Mt. Sirdar. (9198) (Standard 45)

(Ar) N. of Maligne river, between Medicine and Jacques lakes. J. P. 91.

1928 first ascent by the Topographical Survey.

Mt. Southesk. (10100) (Standard 45)

(A) Lat 52° 4' 39", Long. 117° 11' 31"; four mi. S. of Southesk Cairn, between Southesk river and Maligne lake.

Sunwapta Peak *(Sakkarah).* (10883) (22)

(Ar) S. E. angle between Sunwapta river and Jonas creek. ABC, 56, 66; App. x, 31.

1906 first ascent by J. Simpson.

From Sunwapta valley by way of S. slopes and summit snow.

Thistle Mtn. (9200) (GSC 208A)

(A) Between Ruby and Thistle creeks (Cardinal river); two mi. S. E. of Ruby Mtn.

Thumb Peak. (?9700) (Strumia, 1929)

(Ar) S. E. end of Maligne lake; N. of Mt. Warren. A. A. J. i, 1, 55; A. J. xl, 383; xli, 353; C. A. J. xvii, 26.

1928 first ascent by W. R. Hainsworth, M. M. Strumia.

By a pronounced shale couloir leading to the E. ridge which is followed to the summit.

Ascent 6 h.; descent 2 h.

Mt. Toma. (9100) (GSC 208A)

(A-Ar) Between head of Toma creek (Cardinal river) and Medicine Tent (Rocky) river; one and a half mi. S. W. of Mt. Russell.

Unnamed *(Julian).* (?10300)

(Ar) E. of Maligne river; midway between the Unwin-Charlton massif and Mt. Mary Vaux. A. J. xli, 429; C. A. J. xvii.

1929 first ascent by L. C. Amery, *E. Feuz, Jr.*

From camp 4 mi. below Maligne pass via W. side, striking summit ridge considerably to S. by another small peak, the arête being then followed to the summit.

Ascent 8 h.

Unnamed. (10140)

(A) N. E. of Wilcox pass, S. E. of Brazeau tributary from Jonas pass. Alp. Amer. 19; Co., 183; G. J. v, 53.

1893 first ascent by A. P. Coleman, L. Q. Coleman, L. B. Stewart.

From below Jonas pass via scree and steep limestone.

Ascent 4 h.

Unnamed *(Hawley).* (9850) (Strumia, 1929)

(Ar) Between Mt. Sampson and Thumb Peak; E. of Unnamed (Florence). A. A. J. i, 1, 53; A. J. xl, 383; xli, 354; C. A. J. xvii, 26.

1928 first ascent by W. R. Hainsworth.

Via the S. snowfield and W. col.

Ascent 6 h. 25 m.; descent 3 h. 15 m.

Unnamed *(Florence).* (9750) (Strumia, 1929)

(Ar) Between Mt. Sampson and Thumb Peak; E. shore of Maligne lake; W. of Unnamed (Hawley). A. A. J. i, 1, 56; A. J. xl, 383; xli, 354; C. A. J. xvii, 26.

1928 first ascent, M. M. Strumia.

Via the S. snowfield and E. col.

Ascent 3 h. 35 m.; descent 3 h. 15 m.

Unnamed. (9500)

(A) Above the forks of Brazeau river. Co., 141.

1892 first ascent by A. P. Coleman, L. B. Stewart.

Mt. Unwin. (?10550) (Carpe, 1924)

(Ar) W. of Unwin-Charlton massif; between Mt. Charlton and Maligne river. A. J. xxxii, 136; xxxvi, 108.

1923 first ascent by A. Carpe, W. D. Harris, H. Palmer.

From camp on Maligne river near end of W. spur of Mt. Unwin. A conspicuous slide is ascended and steep grass slopes crossed, leading to a hanging valley in the direction of the objective peak. A col on the main S. arête is reached and the steep ridge followed (buttresses and ice-filled chimneys) to the final snow slopes.

Ascent 10 h. 45 m.; descent 5 h.

Mt. Valad. (?10500) (Carpe, 1924)

(A-Ar) S. end of Maligne lake; a snow summit intervening between Mts. Brazeau and Henry MacLeod. A. J. xxxvi, 103.

1928 first ascent by A. Carpe, W. D. Harris, H. Palmer.

From Mt. Henry MacLeod (which see), Mt. Valad may be crossed in two hours over snow slopes to the col below Mt. Brazeau.

Mt. Warren. (10800) (Strumia, 1929)

(Ar) S. E. end of Maligne lake, between Thumb Peak and Mt. Brazeau. A. A. J. i, 1, 53; A. J. xl, 383; xli, 349; C. A. J. xvii, 25.

1928 first ascent by W. R. Hainsworth, M. M. Strumia.

From the E. side via the third (counting from N.) ice tongue descending from the snowfield between Mts. Warren and Brazeau. The snowfield is then crossed to the S. E. ridge, 500′ from summit. In descending, a better route was found down the longest (S. E.) tongue to the terminal moraine.

Ascent 10 h.; descent 4 h. 20 m.

The Watchtower. (9157) (Standard 45)

(Ar) N. of Shovel pass; S. W. of Medicine lake. C. A. J. iv, 73; J. P. 65, 87, 91.

Wilcox Mtn. (9463) (22)

(Ar) Between Wilcox pass (N. Saskatchewan to Sunwapta river) and Sunwapta river. ABC, 4, 65; App. x, 31; C., 110, 123.

1896 first ascent by R. L. Barrett, W. D. Wilcox.

May be ascended without difficulty from camp near tongue of Athabaska glacier, via its S. E. shale slopes.

SECTION XXII

Fortress Lake Pass to Simon Creek

WHIRLPOOL GROUP

The peaks of this group lie N. of Fortress lake and Wood river, W. of Chaba and Athabaska rivers; the W. boundary is the watershed between Fraser sources and lateral branches of Canoe river, while the N. extent is delimited by Simon creek and its W. source on the Divide. It is thus chiefly comprised within the three main branches of Whirlpool river, the more important peaks Mt Fryatt (11026), Mt. Scott (10826) and Mt Hooker (10782) lying between the main Whirlpool and Fortress lake. The area is split into nearly equal E. and W. halves by the line of Alnus creek (Wood river) and Divergence creek (Whirlpool river).

The peaks of this W. section occur chiefly about the rim of Hooker icefield, which contains more than twenty square miles, and discharges by the magnificent Scott glacier to Whirlpool river, as well as the notable Alnus tongues to Alnus creek and Wood river.

The area contains not only the historically important Athabaska pass, described below, but the following as well: Canoe pass (6722'; Whirlpool river to Canoe river); Whirlpool pass (Middle Whirlpool river to Canoe river); Fraser pass (Canoe river to Fraser river), the last named lying in British Columbia.

Immediately W. of Athabaska pass the Brown icefield, S. W. of Mt Brown, occupies the Canoe-Wood watershed and contains some fifteen square miles.

Athabaska pass (5736'; Whirlpool river to Wood river) is the historic gateway from Athabaska to Columbia river

drainage. Although white men are known to have crossed the pass prior to 1811, their names have not come down to us. In this year it was opened by David Thompson, explorer and geographer of the North-West Company, after hostile Piegan Indians had forbidden him the use of Howse pass. Thereafter, Athabaska pass became the route of fur traders and travelers in the traffic between the plains and the Pacific. In early spring, before high water, a brigade of boats would start from the Pacific and work up the Columbia to Boat Encampment, at the Big Bend near the entrance of Canoe and Wood rivers. At the same time the Express would be en route from Edmonton and by boat and packtrain make its way to the pass from that side. Leaving the horses, the men would descend the abrupt W. slope of the pass, following Wood river, and meet the other party, exchanging freight, letters and passengers before returning.

Among those who left narratives of their crossing are Gabriel Franchère (1814), Ross Cox (1817), Alexander Ross and George Simpson (1825), Thomas Drummond (1826), Edward Ermatinger and David Douglas (1827), Pierre Jean De Smet (1846), Henry James Warre and M. Vavasour (1846), and Paul Kane (1846).

David Douglas, the young Scots botanist, ascended a peak on the W. side of Athabaska pass and, later when he returned to London, named it Mt. Brown, ascribing to it an elevation of 17000′ (see under Mt. Brown).

The pass possesses three small summit lakes, the central of which was known as The Committee Punch Bowl (Ross Cox), since it was situated on the Height of Land, a point where a celebration was usually held by the fur-traders. From this central lake streams drain respectively N. and S. to the Athabaska and the Columbia basins. Athabaska pass was once considered for the route of the Canadian Pacific railroad and was examined by Walter Moberly in 1872 after the abandonment of the Howse pass route. At this time Moberly reached the Fraser headwaters, crossing from Athabaska pass along the slopes of Mt. Brown and apparently along the line of Canoe and Fraser passes.

Athabaska pass can be reached with an outfit in three days from Jasper on the following schedule: (1) To tie-camp S. of Mt. Edith Cavell; (2) Scott glacier; (3) Athabaska pass. The peaks of the Hooker basin are most accessible from Scott glacier, Mts Brown and Kane alone being reached from Athabaska pass. The group centering about Mt. Fryatt is difficult to approach, requiring a crossing of the Whirlpool by raft or ford, and negotiation of the steep valley of Divergence creek. The Whirlpool floods quickly in hot weather and may delay progress. Peaks between Simon creek and the Middle Whirlpool are accessible from the latter valley, trail leading to Whirlpool pass (5936′) and thence across terminal branches of Canoe river to Fraser pass (6500′).

Resume of Expeditions:

1. Expeditions of A. P. Coleman. The first in 1888 by way of Columbia valley was unsuccessful in reaching Athabaska pass. On the second, in 1892, by way of the Saskatchewan and Peboktan pass, Fortress lake was rediscovered and several high peaks in the vicinity ascended. In 1893 Athabaska pass was reached and the highest mountain on the N. W. side (Mt Brown) ascended by L. Q. Coleman and L. E. Stewart: "Easy ascent over good slopes, including a mile of snowfield, but ending near the top with stiffer work, needing both hands and feet, while the very top was capped with a heavy snow cornice which they did not think it wise to attempt. . . That the right mountain was climbed is certain, since there is no other even as high within ten miles on the N. W. side of the pass. . . The question of Mt Hooker is less certain. A ridge-like mountain [McGillivray Ridge] rises S. E. of the pass at the point where Hooker is indicated on Palliser's map [and on Douglas' map, 1829], (this was climbed by Coleman and Stewart), but a much finer peak rises a few miles E. of the Punch Bowl, with fields of snow and a large glacier and was estimated at about 11000′ [10782′; the present Mt. Hooker]."

2. The expeditions of W. D. Wilcox (1896), J. N. Collie (1898), J. Habel (1901), and J. Outram (1901) were more or less concerned with the problem of high mountains near

Athabaska pass, but none actually reached it (for detailed tabulation see under Columbia group).

3. A. L. Mumm, with *M. Inderbinen* in 1913, reached Athabaska pass and ascended Mt. Brown. From the Whirlpool they were the first to ascend Scott glacier, but did not penetrate the upper icefalls to the Hooker basin.

4. A. Carpe and H. Palmer, in 1920, ascended Mt. Serenity from Fortress lake and were the first to view the Hooker basin from one of its lofty peaks.

5. A. J. Ostheimer, M. M. Strumia, J. M. Thorington and C. *Kain* in 1924, ascended Mts. Brown, Kane, Oates and Hooker, and were the first to reach the Hooker icefield.

6. W. R. Hainsworth, J. G. Hillhouse, M. M. Strumia and J. M. Thorington in 1928 placed a climbing camp in the Hooker basin and ascended Mts. Scott, Ernatinger, and Evans.

Alnus Peak. (9763) (26)

(Ar-P) Two mi. N. E. of Mt. Ross Cox; head of Alnus creek (Wood river). ABC, 84, 103, 105.

1920 first ascent by the Boundary Commission.

From camp in Alnus valley by way of the S. slopes and S. W. ridge.

Beacon Peak. (9795) (28)

(Ar) One mi. E. of Beacon lake; one mi. N. of Chalk lake (Middle Whirlpool river). ABC, 125, 130.

1921 first ascent by the Boundary Commission.

Mt. Belanger. (10200) (26)

(Ar) Three mi. S. of Mt. Fryatt; one mi. S. E. of Mt. Lapensee; between heads of Divergence and Fryatt creeks.

Mt. Blackrock. (9580) (28)

(Ar-P) N. W. of Mt. Whitecrow; head of W. terminal fork of Simon creek. ABC, 127.

Mt. Brown. (9156) (27)

(Ar-P) Flanks Athabaska pass (5736'; Whirlpool river to Pacific creek) on W.; E. margin of Brown icefield (Wood-Canoe watershed). ABC, 73, 86, 93-97, 105-8; A. J. xxxvi, 331; xxxvii, 327; C. A. J. vi, 88; ix, 45; xii, 163; xvi, 185;

xvii, 66, 69; C., 122, 151; Co., 200; G. J. v, 53; xiii, 337; O., 429; J. P., 22; T., 181, 294.

1827 first ascent by David Douglas.

1893, L. Q. Coleman, L. B. Stewart.

Narrative of David Douglas, May 1, 1827 (from his field-journal, in the library of the Royal Horticultural Society, London): "After breakfast at one o'clock, being as I conceive on the highest part of the route, I became desirous of ascending one of the peaks, and accordingly I set out alone on snowshoes to that on the left hand or West side [of Athabaska pass], being to all appearance the highest. The labor of ascending the lower part, which is covered with pines, is great beyond description, sinking on many occasions to the middle. Half-way up vegetation ceases entirely, not so much as a vestige of Moss or Lichen on the stones. One-third from the summit it becomes a mountain of pure ice, sealed for ever by Nature's hand, a momentous work of Nature's God. The height from its base may be about 5500 feet: timber, 2750; a few mosses and lichens, 500 more; 1000 feet of perpetual snow. The remainder, toward the top 1250, as I have said, glacier with a thin covering of snow on it. The ascent took me five hours; descending only one hour and a quarter."

[The ascent of Mt. Brown was the earliest ascent above the snow line in the Rocky Mountains of Canada. The narrative given above is closely in agreement with existing facts, and it has been shown that the names "Mt. Brown" and "Mt. Hooker" and the elevation of Mt. Brown (17000′) were not given until the appearance of a shorter journal which Douglas wrote in London more than a year later. No elevation for Mt. Hooker (16000′) was given prior to his map of 1829. These heights appear to be based on the current misconception, David Thompson, Thomas Drummond, Ross Cox, and others—that the height of Athabaska pass was 11000′, an idea which became prevalent through Lieut. Aemilius Simpson, unrelated to Sir George Simpson, who obtained incorrect figures during his survey from Jasper House during the winter of 1825-26. It seems certain, however, that Douglas, doubtless with a desire to flatter his

patrons, intentionally exaggerated in claiming his peak as the loftiest on the northern continent of America. C. A. J. xvi, 185; xvii, 66. In any event, Douglas' action served the purpose of stimulating later expeditions to this region.]

The usual route to Mt. Brown, from a camp on Pacific creek, just W. of the summit lakes on Athabaska pass (5736'), leads over snow patches and rock ledges directly upward from the pass to the margin of the Brown icefield, the level névé being then followed for nearly one mi. to the S. E. base of the peak; easy rock thence to corniced summit.

Ascent 4 h. 30 m.; descent 2 h. 5 m. (1924, Ostheimer, Strumia, Thorington, *Kain;* this time is slow, but compares favorably with that of Douglas made under winter conditions.)

Brussels Peak. (10370) (25)

(Ar) A sheer rock tower, the central and highest point of the elongated massif between Fryatt and Lick creeks. ABC, 102; C. A. J. xvi, 25.

Mt. Catacombs. (10800) (25)

(Ar) Three mi. N. W. of Fortress Mtn.; between head of Catacombs creek and Chaba-Athabaska junction. C. A. J. xvi, 23; H. M. i, 2, 51.

1927 first ascent by W. R. Maclaurin, A. J. Ostheimer, *H. Fuhrer, J. Weber.*

From camp (6700') beside small lake at head of Catacombs creek through broken gullies to crest of W. arête (9600'; 2 h.), whence easy rock and snow lead to summit (2 h. 30 m.).

Ascent 4 h. 30 m.; descent 3 h.

Mt. Christie. (10180) (25)

(Ar) The N. E. gable of the massif between Fryatt and Lick creeks; one mi. N. E. of Brussels Peak. ABC, 102; C. A. J. xvi, 25.

Divergence Peak. (9275) (26)

(Ar-P) One mi. N. E. of Alnus Peak; between heads of Divergence creek (Whirlpool river) and Alnus creek (Wood river). ABC, 84, 103, 108.

1920 first ascent by the Boundary Commission.

From camp in Alnus valley by way of the S. W. ridge.

Dragon Peak. (9500) (25)

(Ar) W. of Athabaska river, two mi. below the junction of Chaba river.

Mt. Ermatinger. (10080) (26)

(Ar-P) Two mi. S. of Mt. Oates; E. margin of Hooker icefield; head of S. Alnus glacier. A. A. J. i, 1, 64; ABC, 103; A. J. xl, 382; xli, 341; C. A. J. xvii, 15; T., 171, 187.

1928 first ascent by W. R. Hainsworth, J. G. Hillhouse, M. M. Strumia, J. M. Thorington.

From bivouac in basin of Hooker icefield (see under Mt. Scott). Cross ascending slopes of snow below W. cliffs of Mt. Ermatinger to col (9100′) at head of S. Alnus glacier. A steep 100′ chimney is ascended through the S. buttress to long flat S. ridge, after which rope may be discarded and the summit attained over shale, snow and boulders. In descending, the steeper E. arête may be followed for 500′ and the snow basin followed toward Mt. Oates and the bivouac regained.

Ascent from bivouac 3 h. 45 m.; descent 1 h. 25 m.

Mt. Evans. (10460) (26)

(Ar) Two mi. N. E. of Mt. Kane; N. W. margin of Hooker icefield; S. angle between Scott creek and Whirlpool river. A. A. J. i, 1, 66; A. J. xl, 382; xli, 343; C. A. J. xvii, 15; T., 178.

1928 first ascent by W. R. Hainsworth, J. G. Hillhouse, M. M. Strumia, J. M. Thorington.

From bivouac in basin of Hooker icefield (see under Mt. Scott). Rising snow slopes are followed below the S. W. base of Mt. Ermatinger (ice-crevasses) and across the snow field below the N. wall of Mt. Hooker, keeping well above the head of Scott glacier. The S. E. arête of Mt. Evans is reached at the lowest point (8300′); rope may now be discarded and the summit attained over easy rock and snow (4 h. 40 m.). In descending, the snow slopes immediately to W. may be glissaded to the icefield.

Descent: summit to base at Scott tongue, via E. margin of icefall 5 h. 35 m.

Fortress Mtn. (9908) (25)

(Ar-P) N. buttress of Fortress Lake pass (Chaba river to Fortress lake). ABC, 71, 72, 79; App. x, 33; Co., 148; W., 159.

1896 first ascent by R. L. Barrett.

From Fortress lake through heavy forest and up broken limestone cliffs.

Mt. Fryatt. (11026) (26)

(Ar) The summit of this peak, the loftiest in the S. W. angle between Whirlpool and Athabaska rivers, is visible from Jasper. ABC, 92; A. J. xxxvi, 326; xxxviii, 249; App. xx, 430; C. A. J. xvi, 44.

1926 first ascent by J. W. A. Hickson, H. Palmer, *H. Fuhrer.*

From camp (6600′) between two lakes in E. terminal fork of Divergence creek. Cross along S. shore of upper lake to pass at end of Mt. Fryatt's S. arête, the final mile over snow-covered glacier. From this point (8800′; 3 h. 20 m.) climbing continues on the shaly arête to the first crags, where a deep crack forces the route to the S. W. face (falling stones), steep bands of shale being interrupted by low belts of harder rock. Snow patches are crossed to a brownish rock rib near the centre of the face and this is followed to the base of the summit cap, where a traverse to W. is made. A narrow chimney (20′) here penetrates the lowest tier of summit cliffs and requires step-cutting. A short traverse is now made further W., whence a series of short, difficult cracks lead upward (200′) to the W. arête by which the summit is attained.

Ascent 12 h.

Mt. Hooker. (10782) (26)

(Ar-P) Three mi. S. of Mt. Evans; three mi. S. E. of Mt. Kane; four mi. W. of Mt. Serenity; head of Scott glacier; S. rim of Hooker icefield. ABC, 94, 95, 97; A. J. xxxvi, 334; C. A. J. xvi, 74; T. 189.

1924 first ascent by A. J. Ostheimer, M. M. Strumia, J. M. Thorington, *C. Kain.*

From base camp by small lake, one mi. below Scott glacier, the level tongue is crossed toward its W. retaining wall

below Mt. Evans. A conspicuous morainal fan leads to a series of short chimneys and ledges (stonefalls) by which a diagonal ascent is made to snow slopes immediately below the junction of the S. E. arête of Mt. Evans with the main basin of Hooker icefield (6 h. 15 m.). The névé is crossed to the W. col (9800'; difficult bergschrund; 2 h. 30 m.). The steep W. buttress is avoided by a short traverse of ledges on its S. side and ascending ledges along the W. margin of a broad couloir to the W. arête (1 h. 45 m.). A shaly eminence is passed by its S. snow (crevasses) and the two rocky towers immediately E. traversed (cairn and record on last rocks, 3 h.). The highest point (corniced snow) lie further to E. (1 h.).

Ascent 15 h. 45 m.

[Descent was made by snow shoulder extending S. from summit and short couloirs leading toward Hooker glacier (Wood river slope). A bivouac was made (9500') and because of bad weather, two nights were spent on the mountain. Descent was finally accomplished through the Hooker-Serenity pass and the E. margin of Scott glacier (see under Mt. Scott). Future ascents will undoubtedly be made from a bivouac in the Hooker basin, via the Hooker-Serenity pass and the S. arête of the main peak.]

Mt. Kane. (10000) (27)

(Ar) Two mi. S. W. of Mt. Evans; between Kane glacier and Whirlpool river. ABC, 98; A. J. xxxvi, 329; C. A. J. xvi, 91; T., 180.

1924 first ascent by A. J. Ostheimer, M. M. Strumia, J. M. Thorington, *C. Kain.*

From camp on Athabaska pass, via tongue of Kane glacier, S. of McGillivray Ridge, to upper névé (2 h.); follow snowfield to E. col, reached over small schrund and short chimneys. The E. arête is followed to the summit (5 h.). The W. arête may be followed in descending and includes sharp snow arêtes and rock ridges which are traversed on their S. slabs. (Mts. Robson, Columbia, N. Twin and Clemenceau are visible from the summit.)

Total time 13 h.

Mt. Lapensee. (10190) (26)

(Ar) Three mi. S. W. of Mt. Fryatt; one mi. N. W. of Mt. Belanger; two mi. N. E. of Divergence Peak; S. E. angle of terminal forks of Divergence creek. A. J. xxxviii, 250; App. xx, 436; C. A. J. xvi, 48.

1926 first ascent by J. W. A. Hickson, H. Palmer, *H. Fuhrer.*

From camp (7000′) on meadows at head of S. E. branch of Divergence creek by way of large ravine in the S. E. face. The base of this is situated 1750′ above camp and leads (steep snow and rock; falling stones) to col (9350′; 2 h. 15 m.) between the S. tower and the main peak. Above this, a short wall is followed by a steep and narrow couloir leading to the summit ridge (2 h.) midway between two culminating points of almost equal height, either of which may be reached in 20 m.

Ascent 7 h. 45 m.; descent 5 h. 40 m.

Lick Peak. (9440) (25)

(Ar-P) Five mi. S. E. of Divergence Peak; between Alnus creek and head of Lick creek. ABC, 102.

Mallard Mtn. (9330) (27)

(Ar-P) Two mi. N. of Canoe pass (6722′; Whirlpool river to Canoe river). ABC, 87, 99, 107.

1920 first ascent by the Boundary Commission.

From camp by lake W. of summit of Canoe pass, by way of S. W. ridge.

McGillivray Ridge. (8850) (27)

(Ar-P) Flanks N. E. side of Athabaska pass (Whirlpool river to Pacific creek); W. margin of Kane glacier. ABC, 97, 98, 104, 106, 118; Co., 207.

1893 first ascent by L. Q. Coleman, L. B. Stewart.

From Athabaska pass, via tongue of Kane glacier, S. of McGillivray ridge to upper névé (2 h.) whence the highest point of the long crest may be reached over scree.

[This mountain, known as McGillivray's Rock to the pioneers, is first mentioned by Gabriel Franchère (1814), who states that it was named by Henry, and occupies the position ascribed to Mt. Hooker on the map of David

Douglas (1829). It is unlikely that the present Mt. Hooker is the peak so named by Douglas. A. J. xxxvi, 327; C. A. J. xvi, 185; xvii, 69; T., 294.]

Needle Peak. (9668) (28)

(Ar) W. angle between Middle Whirlpool river and Simon creek; two mi. N. E. of Beacon Peak. A. A. J. i, 1, 68; ABC, 123, 125; T., 212.

Mt. Oates. (10220) (26)

(Ar-P) One mi. S. E. of Mt. Scott; E. margin of Hooker icefield; between heads of N. and S. Alnus glaciers. ABC, 103; A. J. xxxvi, 332; C. A. J. xvi, 43; T., 188.

1924 first ascent by A. J. Ostheimer, M. M. Strumia, J. M. Thorington, *C. Kain.*

From base camp by small lake, one mi. below Scott glacier, by way of the glacier, E. lateral moraine and Hooker icefield (see under Mt. Scott; the ascent is facilitated by a bivouac). From snow plateau between Mts. Scott and Ermatinger ascend scree and snow to higher plateau between Mts. Oates and Scott. Cross and gain S. arête of Mt. Oates by a short conspicuous gully (Fortress lake visible), following the ridge over easy rock and large boulders to the summit (rope unnecessary above the Scott icefalls).

Ascent: Camp to icefield 4 h. Scott-Oates plateau 45 m.; summit 3 h. 30 m.; descent 4 h. 30 m.

Mt. Ross Cox. (9840) (26)

(Ar-P) One mi. N. E. Mt. Scott; between Ross Cox creek (Whirlpool river) and N. Alnus glacier. ABC, 103, 114.

Mt. Scott. (N. 10826; S. 10550) (26)

(Ar-P) Between Scott glacier (Whirlpool river) and head of N. Alnus glacier; one mi. N. W. of Mt. Oates. A. A. J. i, 1, 64, 65; ABC, 103, 114; A. J. xl, 382; xli, 341; C. A. J. xvii, 15.

From base camp by small lake, one mi. below Scott glacier, the level tongue is followed and the lower icefall passed by the steep E. lateral moraine to the upper basin (7000′). Rope is now required and the crevassed E. lateral icefall (800′) is ascended into the basin of Hooker icefield between Mts. Scott and Ermatinger, where a bivouac (7800′; 4 h.

50 m.) is made on the broad moraine below Mt. Scott. This is an advantageous position for ascending all peaks on margin of Hooker icefield.

S. peak: 1928 first ascent by W. R. Hainsworth, J. G. Hillhouse, M. M. Strumia, J. M. Thorington.

From bivouac via slopes of scree and snow to plateau between Mts. Oates and Scott, whence objective point may be reached (rope unnecessary) over shifting shale and snow of S. E. face.

Ascent from bivouac 2 h. 40 m.; descent 1 h.

N. peak: 1928 first ascent by W. R. Hainsworth, M. M. Strumia.

The S. peak had been reached in bad weather; it was regained by the route given above (2 h. 50 m.) and the broken rock arête followed to the highest point (1 h. 12 m.).

Mt. Serenity. (10573) (26)

(P) N. W. angle between Alnus creek and Wood river; between S. Alnus and Serenity glaciers; two mi. S. E. of Mt. Ermatinger. A. A. J. i, 65; ABC, 95, 104; App. xix, 270; T., 60, 171.

1920 first ascent by A. Carpe, W. D. Harris, H. Palmer.

From camp one mi. below tongue of Serenity glacier, via the medial moraine and difficult bergschrund to a pronounced col in the S. arête. The rock buttress of the arête is surmounted by a steep couloir and a narrow corniced ridge leads to the summit. [It will be found possible to make this ascent from a bivouac in the Hooker icefield basin (see under Mt. Scott) and the W. snow of the objective peak.]

Ascent 10 h. 30 m.; descent 4 h. 30 m.

Unnamed *(Lowell).* (10300) (25)

(Ar) One mi. S. W. of Brussels Peak; between Fryatt and Lick creeks. This peak rises with Brussels Peak and Mt. Christie from an elongated pedestal (9000'), the massif being visible from Jasper. C. A. J. xvi, 24; H. M. i, 2, 51.

1927 first ascent by A. J. Ostheimer, *H. Fuhrer, J. Weber.*

From camp on N. side of Lick creek, opposite mouth of Catacombs creek, ascend to small basin S. W. of peak. Cross W. buttress of main S. arête, a small glacier and a second

buttress (8500'; 2 h.), thence following the shaly S. arête to the summit (2 h. 45 m.).

Ascent 4 h. 45 m.; descent 3 h.

Unnamed *(Peak A).* (9800) (26)

(Ar) Two mi. S. of Mt. Belanger; between heads of Divergence and Lick creeks. A. J. xxxviii, 251; App. xx, 438; C. A. J. xvi, 50.

1926 first ascent by J. W. A. Hickson, H. Palmer, *H. Fuhrer.*

From head of Divergence creek cross E. shore of large lake between Divergence Peak and Mt. Lapensee, and traverse a small glacial pass (8000') above head of Lick creek. The objective peak lies one mi. S. E. of the pass, its S. arête being accessible through a large couloir on the W. face and leads to the summit (rope unnecessary).

Ascent 6 h. 40 m. Total time 12 h. 30 m.

Mt. Whitecrow. (9288) (28)

(Ar-P) One mi. N. of Beacon lake; one mi. N. W. of Beacon Peak. ABC, 126, 127, 130.

1921 first ascent by the Boundary Commission.

SECTION XXIII

PEAKS IN THE ENVIRONS OF JASPER

Hereunder are listed certain widely-scattered mountains which are naturally approached from Jasper. They are for the most part adjacent to the Canadian National railroad, and all are on the Alberta (Ar) slope within the drainage of western tributaries of the Athabaska: Astoria, Miette, Snaring and Snake Indian rivers. In the southern sector the peaks stand opposite to the Rampart group of the main watershed across Tonquin valley. The outstanding peak is Mt. Edith Cavell (11033), conspicuously in the view S. from Jasper and a landmark of the Athabaska trail.

A motor road has been built from Jasper to Cavell lake (summer camp), and a further section leads up the Athabaska valley as far as the mouth of Whirlpool river. Just as Banff is the chief point of departure for expeditions among the southern and Lake Louise that for expeditions among the central groups, so Jasper is the outfitting point for expeditions into the northern area. It is the administrative centre for the immense territory of Jasper Park.

Trail distances for circular routes: From Cavell road up Portal valley to Amethyst lakes, and down Meadow creek to Geikie station, about twenty-four miles. From Jasper over Shovel pass (7500') to Maligne lake, thirty miles.

For the Memorial Hut (1930; Edmonton Section, A. C. C.), on Penstock creek near Surprise Point, reached by trail from end of Cavell motor road, see Section xxiv.

The district to the N. and W. of Jasper has not been thoroughly explored, although there are old Indian trails

through the basins of Snaring and Snake Indian (Stony) rivers. None of the peaks are of great elevation, although several areas display alpine characteristics. (A. J. xxvi, 110; App. xiii, 241; G. J. xxxix, 313.)

Map reference: Central part of Jasper Park (1917), by M. P. Bridgstand. Six sheets. Also (1923) in one sheet.

Mt. Aquila. (9269) (J. P. 1917)

(Ar) S. of Lectern Peak, between Portal creek and Astoria river. J. P., 86, 88.

1915 first ascent by the Topographical Survey.

Blackhorn Peak. (9800) (J. P. 1917)

(Ar) S. W. of Throne Mtn.; S. E. angle between Campus creek and Astoria river; N. E. of Campus pass (Campus creek to Simon creek). App. xx, 536; C. A. J. x, 74; xvi, 59; H. M. i, 2, 72; J. P., 46.

1926 first ascent by R. Cleveland, B. Gilman, B. Jefferson.

From Campus valley by way of the S. W. face. A chimney leads up to a prominent buttress above Campus pass; at the right edge of the buttress there is a deep, narrow chimney leading high up through the belt of black rock (each chimney is about 40′ high, with firm rock and no falling stones). From the top of the second chimney a ledge is gained by a short traverse and followed toward the W. arête, the latter being attained through a short, broad couloir. The arête cannot be followed throughout, but the summit is gained by a short detour on the S. W. face.

Ascent 6 h.; descent 4 h.

Chak Peak. (9114) (J. P. 1917)

(Ar) Between Mt. Aquila and Astoria river. J. P., 49, 86, 89.

1915 first ascent by the Topographical Survey.

From head of Portal creek.

Mt. Chevron. (9300) (J. P. 1917)

(Ar) S. E. of Blackhorn Peak; S. of Buttress and Beryl lakes (Verdant creek). C. A. J., x, 74; J. P., 89.

Cliff Mtn. (9000)

(Ar) N. E. of Snaring river; head of Cobblestone creek; S. E. of Mt. Whitecap. J. P., 89.

Mt. Clitheroe. (9014) (29)

(Ar) S. E. angle between Maccarib creek and Amethyst lakes. J. P., 50, 86, 90.

1915 first ascent by the Topographical Survey.

From Maccarib pass (Portal creek to Meadow creek) or Amethyst lakes by way of the W. shoulder.

Mt. Consort. (9460)

(Ar) W. angle between N. and S. forks of Snaring river; N. E. of Monarch Mtn. J. P., 89.

Diadem Peak. (9615)

(Ar) W. angle between N. and S. forks of Snaring river. C. A. J. x, 76; J. P., 89.

Mt. Edith Cavell *(LeDuc, Fitzhugh, Geikie).* (11033) (J. P. 1917)

(Ar) S. angle between Astoria and Whirlpool rivers; N. E. of Verdant pass. A. J. xxviii, 367; C. A. J. iv, 63; vi. 92; viii, 63, 136; x, 74; J. P., 42, 84, 86, 89; Sierra xiv, 20.

1915 first ascent by A. J. Gilmour, E. W. D. Holway.

Route 1. From camp on S. side of Verdant pass (Astoria river to Whirlpool river), ascend cliffs to subsidiary W. peak and, from the depression between, the narrow arête is followed to the corniced summit.

Ascent 6 h. 30 m.

Route 2. 1924, L. Coolidge, G. Higginson, J. E. Johnson, *A. Streich.* E. arête variant. From bivouac one mi. upstream from Cavell lake, ascend across Ghost glacier toward prominent col at foot of E. ridge [present route is from end of road by path along E. moraine and does not reach glacier until about one hour below the col]. Slopes immediately below col are ice, with rock outcrops, and may require step-cutting. Above col follow easy rock ledges, with occasional snow, to snow shoulder which is prominent in views from N. (roping place). Continue by ridge to ledge at base of

buttress formed by prominent band of black rock (1 h. above shoulder). Traverse S. on this ledge into a couloir and by difficult climbing on loose rock regain ridge above buttress and follow it to summit. Descent by Route 1 to Astoria river and Cavell lake.

Ascent to col 3 h.; thence to summit 7 h.

Route 3. 1924, J. W. A. Hickson, *C. Kain.* The E. arête was followed throughout. The buttress avoided in Route 2 was found to offer sound and interesting climbing. [This route has since been made several times, and is now free of the loose rock encountered by the first parties.]

Mt. Estella. (10069) (J. P. 1917)

(Ar) N. E. of Mt. Majestic; S. W. of Manx Mtn. J. P., 45, 89.

Mt. Fortalice. (9300) (J. P. 1917)

(Ar) N. W. of Manx Mtn.; E. of Crescent creek. J. P., 90.

Franchere Peak. (9225) (J. P. 1917)

(Ar) S. of Mt. Aquila; E. of Chak Peak; between Astoria river and head of Portal creek. J. P., 86, 90.

Lectern Peak. (9095) (J. P. 1917)

(Ar) S. angle between Portal creek and Astoria river; N. of Mt. Aquila. C. A. J. vi, 78; x, 73; J. P., 39, 46, 48.

Mt. Majestic. (10125) (J. P. 1917)

(Ar) N. E. angle between Maccarib and Meadow creeks; N. W. of Vertex Peak. App. xx, 536; C. A. J. x, 73; xvi, 246; J. P., 45, 86.

1926 first ascent by F. C. Bell, Miss M. F. Cooper, M. D. Geddes, Miss E. H. Greer, A. J. Hills, A. F. McGill, I. F. Morrison, Miss M. I. Nickell, Miss Reid, J. Walsh.

From Maccarib creek, immediately N. of Amethyst lakes, by the S. W. ridge over loose rock and a final snow ledge to summit. Descent made by main S. couloir to Maccarib creek.

Ascent 6 h.; descent 3 h.

Manx Mtn. (9987) (J. P. 1917)

(Ar) W. of Mt. Terminal; S. of Whistlers pass (Portal creek to Meadow creek).

1919 first ascent by R. T. Chamberlin, B. Herzberg.

From camp on Marmot pass (7400′) via S. E. cirque and S. E. ridge.

Monarch Mtn. (9500)

(Ar) Head of S. fork of Snaring river. C. A. J. x, 76; J. P., 57, 90.

Oldhorn Mtn. (9779) (28)

(Ar) N. E. angle between Amethyst lakes and Astoria river; three mi. S. E. of Mt. Clitheroe. App. xix, 244; J. P., 46, 49.

1924 first ascent by L. Coolidge, G. Higginson, J. E. Johnson, *A. Streich.*

From camp (7000′), W. S. W. of peak. Traverse E. on scree slopes into big couloir on S. face. Ascend easy ledges on true left side of couloir to point 300′ below summit block. Cross couloir and ascend scree to N. W. base of peak. Summit consists of a dike 100′ long 15′ thick and 30-40′ high, running N. W. It is best traversed to the N. E. side, whence the top may be attained by easy cracks. Rope used only in descent.

Ascent 3 h.; descent 2 h.

Pyramid Mtn. (9076) (Standard 45)

(Ar) Six mi. N. W. of Jasper station, C.N.R. A. J. xxvi, 385; C. A. J. iv, 9; J. P., 56, 57, 83, 91.

1911 first ascent by G. B. Kinney, *C. Kain.*

From Jasper, by way of the road to Pyramid lake. Thence through burned timber and over scree and rock. The best route is from the W. side of the lake, upward to the E. ridge.

Mt. Terminal. (9300) (J. P. 1917)

(Ar) E. of Manx Mtn.; W. buttress of Marmot pass (7400′; Whistlers creek to Portal creek). J. P., 91.

Throne Mtn. (10144) (J. P. 1917)

(Ar) S. W. angle between Verdant creek and Astoria river; N. E. of Blackhorn Peak; N. of Buttress and Beryl lakes. A. J. xxxviii, 251; App. xx, 541; J. P., 42, 91; C. A. J. xvi, 51.

1926 first ascent by J. W. A. Hickson, H. Palmer, *J. Weber*.

From camp in Astoria valley at S. base of Oldhorn Mtn., the river is crossed and ascent made over rock slides into cirque between Blackhorn Peak and Throne Mtn. (7400'; 4 h.). A couloir penetrating the summit cap and some very steep slabs lead to the top (4 h. 15 m.).

Ascent 9 h.; descent 7 h.

Vertex Peak. (9600) (28)

(Ar) S. E. of Mt. Majestic; two mi. N. of Maccarib pass (Portal creek to Maccarib creek). J. P., 45, 91.

Mt. Whitecap. (9400) (Standard 45)

(Ar) N. W. of Cliff Mtn.; between Snaring river and S. branch of Snake Indian river. J. P., 72, 91.

SECTION XXIV

From Head of Simon Creek to Yellowhead Pass

FRASER-RAMPART GROUP

Between the headwaters of Whirlpool river and Yellowhead pass (3711'; Miette river to Fraser river) the principal peaks of the Divide are found in the Rampart massif and centre about its highest summit, Simon Peak (10899). From this as the central point five gigantic ridges radiate. The first, toward the S., carries the Divide from the direction of Athabaska pass and forms the wall of rock-peaks between the Fraser valley and Simon creek. The second is a prolongation of this and bears the peaks extending N. W. into the acute angle between Geikie creek and Fraser river. The third spoke is short but boldly constructed, extending N. into the cirque of Geikie creek and bearing the peaks of Postern and Casemate which form the W. wall of Bennington glacier. The fourth range extends S. E. between Simon creek and the sources of Astoria river, of which Mt. Erebus (10234) is a prominent peak. The fifth and last radiation is the most important, carrying the Ramparts in a great arc to N. and N. W. between Amethyst lakes (Tonquin valley) and Bennington glacier. This portion of the range carries the Divide for some five miles to Tonquin pass (6393'; Meadow creek to Tonquin creek) and the meadows adjacent to Moat lake. Thence the Divide continues N. W. for thirteen miles in airline to Yellowhead pass.

The Rampart peaks are all spectacular, a precipitous escarpment rising above open meadows, crowned with jagged,

turreted pinnacles reflected in the lakes below. Among them, Mt. Geikie (10854), Redoubt Peak (10220) and Turret Mtn. (10100) have attracted special attention of climbers.

The ramifying glaciers, several of which exceed two miles in length, call for mention, those at the head of Simon creek having an unusually fine radial arrangement. A glacial saddle (7100′) connects Tonquin valley with the head of Simon creek and occupies the depression between Mt. Erebus and the peaks of Mt. Fraser. The winding Bennington glacier extending three miles N. from Simon Peak and forming the source of Geikie creek (Fraser river) descends more than 5000′ within three miles into one of the deepest gorges of the region.

Amethyst lakes, forming a linked body of water three miles long, occupy the floor of Tonquin valley immediately below and E. of the Ramparts, the adjacent meadows forming attractive camping places. The section is approached from Jasper most easily by trail up Portal creek and over Maccarib pass (7100′); or by trail from the railroad leading up Meadow creek. Horses may be brought over the latter route from Geikie station to Moat lake in one day. A third approach (interesting but rougher) is by trail from the end of the Cavell motor road up Astoria river. The Memorial Hut (1930; Edmonton Section, A. C. C.), on Penstock creek not far from Surprise Point, may be reached by this trail and is an excellent climbing centre. Trail distance from Geikie station, up Meadow creek to Amethyst lakes and down Portal valley to the Cavell road is about twenty-four miles.

Several peaks in the northern Ramparts are best ascended from camps at the head of Geikie creek, reached from Moat lake over the W. shoulder of Barbican Peak with horses in 4-5 h.

Alcove Mtn. (9200) (28)

(Ar) One mi. S. E. of Eremite Mtn.; between Simon creek and Eremite glacier (Astoria river). ABC, 127; J. P., 47, 88.

Angle Peak. (9500) (28)

(Ar) One mi. E. of Alcove Mtn.; S. E. angle of Eremite glacier. ABC, 127; J. P., 47, 88.

Barbican Peak. (10100) (28)

(P) One mi. W. of Mt. Geikie; between Tonquin and Geikie creeks. ABC, 129, 132; A. J. xxxvi, 342; C. A. J. x, 75; xiii, 209; xiv, 60; xvi, 112; J. P., 53, 88; T., 213.

1924 first ascent by V. A. Fynn, M. D. Geddes, F. H. Slark, C. G. Wates.

Route 1. From camp (7150′) on Geikie meadows immediately S. of objective peak. Cross shale slopes of S. face from E. to W., under cliffs to well-barked col on S. W. arête (5 h.). Follow arête to a gap (8′) where rope is required. The summit buttress is reached and a traverse of the S. face is made to E. in an ascending line to the summit (3 h. 30 m.). Descent was made by a couloir on the S. face, close to the S. W. ridge.

Ascent 8 h. 30 m.; descent 5 h. 45 m.

Route 2. 1927. Miss H. A. Burns, E. R. Gibson, E. Niederer, Miss G. B. Pickford, C. G. Wates. By way of the central couloir of the S. face until it becomes vertical at its intersection with Route 1, from which point the latter is continued.

[In 1929 the Barbican-Geikie col (Paugak pass) was crossed by Miss H. A. Burns, E. R. Gibson, C. G. Wates. Portions of the route are exposed to stonefalls.]

Mt. Basilica. (9500) (29)

(Ar) S. W. of Roche Noir; N. of Mt. Curia; between Clairvaux and Meadow creeks. J. P., 59, 88.

Bastion Peak. (9812) (28)

(Ar-P) S. buttress of Tonquin pass (6393′); Meadow creek to Tonquin creek; between Moat lake and head of Geikie creek. ABC, 128, 132; A. J. xxxvii, 377; xxxviii, 63; App. xix, 240, 400; C. A. J. x, 75; xv, 134; J. P., 52, 88; T., 223.

1925 first ascent by J. W. A. Hickson, H. Palmer, *H. Kohler.*

Route 1. From camp at Moat lake to col (7950′) at base of E. arête (2 h. 10 m.); traverse W. to S. S. W. ridge and gain shoulder at 8750′ (1 h. 25 m.). Traverse W. to well-marked couloir, above which three chimneys lead to summit (3 h. 35 m.).

Ascent 7 h. 20 m.; descent 6 h. 30 m.

Route 2. 1927, E. R. Gibson, E. Niederer. From camp on Geikie meadows the mountain may be reached and ascended by its S. W. gullies, effecting a junction with Route 1 at 8700′. Up to the present it has been used only as a route of descent. C. A. J. xvi, 110.

Bennington Peak. (10726) (28)

(Ar-P) Half mi. N. E. of McDonell Peak; between Fraser and Bennington glaciers. ABC, 128; App. xx, 536; C. A. J. xvi, 66; T., 212.

1926 first ascent by R. B. H. Bibby, J. Hoag, N. W. Spadavecchia.

From camp at Surprise Point go S. to Penstock creek and follow moraine and grass slopes to Fraser glacier. Ascend toward S. ridge from McDonell Peak, turning at about 9300′ to N. in order to skirt ice slopes and reach the rocks leading to the McDonell-Bennington col (9000′; 5 h.). Ledges and two small but steep snow patches are ascended to the col (10300′), from which the W. S. W. ridge of the objective peak is followed to the summit (3 h. 30 m.).

Ascent 9 h. 35 m.; descent 5 h. 45 m.

Bucephalus Peak. (9089) (29)

(P) One mi. S. E. of Mt. Fitzwilliam; S. E. angle between Rockingham and Fitzwilliam creeks (Yellowhead lake). ABC, 24, 25.

1917 first ascent by the Boundary Commission.

Casemate Mtn. (10160) (28)

(P) Two mi. N. W. of Simon Peak; two mi. S. E. of Postern Mtn.; between Icefall lake and Bennington glacier. A. A. J. i, 1; ABC, 129, 132; A. J. xxxviii, 58, 62; xl, 385; C. A. J. xvii, 54; J. P., 48.

1928 first ascent by D. L. Busk, J. E. Johnson, *H. Fuhrer.*

From camp at Geikie meadows to bivouac at Icefall lake (5500′; 4 h.). Follow scree to foot of broad couloir in S. W. face, descending from large snow patch immediately below summit (1 h. 30 m.). Bear to left (to avoid stonefalls) and ascend narrow couloir leading to Postern-Casemate col, 200′ below which a traverse is made over easy rock back into the

main couloir. Ascend latter to foot of steep cliffs and when about 200' above the col, traverse a broad scree ledge to the main N. arête (2 h. 30 m.) which is followed over steep rock (loose and icy) to the summit (2 h. 30 m.).

Ascent 6 h. 30 m.; descent 4 h.

Mt. Curia. (9300) (29)

(Ar) S. of Mt. Basilica; between Clairvaux and Meadow creeks. J. P., 51, 89.

Dungeon Peak. (10290) (28)

(Ar-P) Half mi. S. of Redoubt Peak; between Amethyst lakes and Bennington glacier. ABC, 128; A. J. xxxviii, 58; C. A. J. x, 75; J. P., 47, 51, 89.

Mt. Elephas. (E. 9850; W. 9810) (28)

(Ar-P) Two mi. N. W. of Mt. Blackrock; one mi. S. of Mt. Mastodon; between forks of Simon creek and Fraser river. ABC, 127, 128.

Mt. Erebus. (10234) (28)

(Ar) One mi. S. W. of Outpost Peak; one mi. N. W. of Eremite Peak; between Eremite glacier and head of Simon creek. ABC, 127; App. xix, 244; C. A. J. x, 74; J. P., 47, 49, 53, 82.

1924 first ascent by L. Coolidge, G. Higginson, J. E. Johnson, *A. Streich.*

From camp at Surprise Point ascend Fraser glacier to snow pass (8000'; 3 h.) leading over to head of Simon creek. S. Fraser glacier is descended to W. S. W. slopes of Erebus, where one takes to rocks and works up ledges and cracks on W. face to S. ridge. The arête is then followed N. for 50 yards to summit.

Ascent 6 h.; descent 5 h.

Eremite Mtn. (9500) (28)

(Ar) One mi. S. E. of Erebus Mtn; one mi. N. W. of Alcove Mtn; between Eremite glacier (Astoria river) and Simon creek. ABC, 127; J. P., 47, 89.

Mt. Fitzwilliam *(Pelee).* (9538) (29)

(P) The dominating peak S. of Yellowhead pass (3711'; Miette river to Fraser river); S. E. angle between Rocking

ham and Fitzwilliam creeks. ABC, 23, 24; C. A. J. iv, 12; J. P., 47, 50, 90.

1917 first ascent by the Boundary Commission.

[The mountain was named Fitzwilliam by Milton and Cheadle, who crossed Yellowhead pass in 1863.]

Mt. Geikie. (10854) (28)

(P) One mi. W. of Turret Mtn.; one mi. E. of Barbican Peak; between Tonquin and Geikie creeks. A. A. J. i, 1, 8; ABC, 24; A. J. xxxiii, 147; xxxvii, 326; xxxviii, 62; App. xix, 244; xx, 536; C. A. J. iv, 11, 72; xiv, 53; xvi, 55; J. P., 51, 54, 86, 90; Sierra, xiv, 22; T., 221.

1924 first ascent by V. A. Fynn, M. D. Geddes, C. G. Wates.

Route 1. From camp (7150′) on Geikie meadows immediately S. of Barbican Peak. Follow contour one and a half mi. E. to small lake (Blue Inkwell), where ascent begins in couloir of S. E. face, rising to crest of E. arête, half mi. E. of summit of objective peak (2 h. 10 m.). The snow of the couloir is followed as long as possible and then the rocks (very loose) on its W. side to the arête (5 h. 10 m.). An unclimable step in the arête now forces a difficult traverse on its N. side, the arête being regained by a steep, narrow crack (wedged stones as assistance) and snow slopes. A second step (black rock) is circumvented by a traverse to S. along a ledge of yellow rock. The crest of the arête may now be regained and followed across a wide depression to the summit.

Ascent 12 h. 55 m.; descent 12 h. 35 m. A. J. xxxvi, 344; C. A. J. xiv, 62.

Route 2. 1926, A. W. Drinnan, L. Grassi. By the couloir of Route 1, S. E. face. Half way up to the arête, at about 8500′, the couloir presents a slight fork to W. Here it is left and ledges ascended diagonally across the face, bearing W. and gaining the arête just E. of the summit. (This route is preferable to Route 1 and is now generally followed.)

S. E. peak (?10000′): C. A. J. xvi, 114.

1927 first ascent by Miss H. A. Burns, E. R. Gibson, E. Niederer, Miss G. B. Pickford, C. G. Wates.

Mt. Mastodon. (9800) (28)

(Ar-P) One mi. N. of Mt. Elephas; S. W. angle of Mastodon glacier (Simon creek). ABC, 127.

McDonell Peak. (10700) (28)

(Ar-P) Half mi. S. E. of Simon Peak; half mi. S. W. of Bennington Peak; between heads of Fraser and Bennington glaciers. ABC, 128; A. J. xxxvi, 341; xxxvii, 326; xxxviii, 56; C. A. J. x, 74; J. P. 47, 50, 90; T., 221.

1919 first ascent by A. Carpe, R. H. Chapman, H. Palmer.

Route 1. From Surprise Point follow trail to valley of Penstock creek, ascending moraine and grass slopes to Fraser glacier (1 h. 15 m.). The dry glacier is ascended to névé, which is crossed toward the rounded crest of rock on the S. arête of the objective peak, the summit being reached over loose shale.

Ascent 6 h. 45 m.; descent 4 h. 30 m.

[This was the first occasion on which a major peak of the main watershed between Tonquin and Athabaska passes was ascended.]

Route 2. 1923, B. Durand, D. B. Durand. After reaching the summit by Route 1, the N. W. arête was descended to the McDonell-Simon col n. an attempt to reach Simon Peak, but, owing to ice encountered beyond, the route was retraced. 1924, A. J. Ostheimer, M. M. Struma, J. M. Thorington, *C. Kain.* From the summit of Simon Peak (which see) a traverse of McDonell Peak was made by the intervening arête (firm, steep rock), with descent by Route 1 (rope not used during descent).

Simon Peak to McDonell Peak, 1 h.; descent to ice terminus 1 h. 35 m.

Outpost Peak. (S. W. 9400; N. E. 9100) (28)

(Ar) One mi. N. E. of Mt. Erebus; between Fraser and Eremite glaciers (Astoria river). App. xx, 536; J. P. 47, 91.

1926 first ascent by R. B. H. Bibby, J. H. Hoag, Miss W. S. MacLaren, Miss P. Prescott, G. Tollington, *H. Fuhrer, F. Rutis.*

From camp at Surprise Point via Fraser glacier and N. W. slopes.

Paragon Peak. (9950) (28)

(Ar-P) Two mi. N. E. of Simon Peak; between Surprise Point (7873′) and Bennington glacier. A. J. xxxviii, 57; T., 214.

1919 first ascent by A. Carpe, H. Palmer.

From camp at S. end of Amethyst lakes ascend slopes around N. base of Surprise Point and a narrow glacier-filled gulch leading to the arête immediately W. of Surprise Point (1 h. 30 m.). Follow jagged arête W. to base of peak (1 h.) and ascend it to summit (3 h. 15 m.). In descending, S. slopes were followed from the col to the valley of Penstock creek.

Postern Mtn. (9720) (28)

(P) Two mi. N. W. of Casemate Mtn.; W. of Bennington glacier; E. angle of forks of Geikie creek. ABC, 129; A. J. xxxviii, 58, 62; C. A. J. xvi, 116; J. P., 48.

1927 first ascent by E. R. Gibson, E. Niederer.

From camp on Geikie meadows cross to slopes above Icefall lake and ascend steep gullies of S. face and gain S. E. arête at a point somewhat above the Postern-Casemate col. The ridge is then followed to the summit, a pitch 100′ high being met with half-way to the top, and a 20′ notch beyond in the narrowest part of the ridge.

Ascent, from Icefall lake, 5 h. 30 m.; total time from camp 17 h.

Redoubt Peak. (10220) (28)

(Ar-P) Half mi. N. of Dungeon Peak; between Amethyst lakes and Bennington glacier. ABC, 128, 131; A. A. J. 1, 16; A. J. xxxviii, 62; C. A. J. x, 75; xvi, 63, 241; xvii, 53; J. P., 47, 52, 91.

1927 first ascent by F. H. Slark, *F. Rutis.*

[The climbers met with a fatal accident on descent and their bodies were not found. Their record was discovered on the summit by the party of the following year. Starting from a camp at Amethyst lakes they crossed the pass (8300′) immediately N. W. of Redoubt Peak, possibly ascending the mountain by this arête. It is probable that the fall occurred

in an attempt to descend the W. face, a rucksack being found some distance down on this slope. A. J. xl, 385; C. A. J. xvi, 119, 241.]

1928, D. L. Busk, J. E. Johnson, *H. Fuhrer.* From camp between Amethyst and Moat lakes, by the easy, broad buttress between two snow couloirs to Lookout pass (8300'; 2 h.). Slopes of W. face are traversed for one mi., ascending slightly to triangular snow patch below and just W. of peak (2 h.). Above this three broad shale ledges run horizontally across the face and are separated by belts of steep cliff. The first ledge is reached without difficulty; the second by two moderately difficult chimneys slightly to S. The third ledge is reached by traversing further to S. and ascending a steep ice gully descending from summit ridge. A short traverse N. along the upper ledge leads to a chimney which is ascended to the summit.

Ascent from triangular snow patch 3 h.; descent 2 h.; from camp, ascent 7 h.; descent 6 h.

Roche Noire. (9594) (J. P. 1917)

(Ar) N. E. of Mt. Basilica; between Meadow and Clairvaux creeks (Miette river). J. P., 51, 86, 90.

No data as to first ascent.

Rufus Peak. (9100) (28)

(P) One mi. N. W. of Scarp Mtn.; between Fraser river and Scarp glacier (Geikie creek). ABC, 130.

1921 first ascent by the Boundary Commission.

Scarp Mtn. (9900) (28)

(Ar-P) Two mi. S. W. of Simon Peak; between heads of Mastodon glacier (Simon creek) and Scarp glacier (Geikie creek). ABC, 127.

Simon Peak. (10899) (28)

(Ar-P) Highest Divide peak between Fortress lake and Yellowhead passes; between head of Simon creek and Bennington glacier; half mi. N. W. of McDonell Peak; with Bennington and McDonell Peaks (which see) constitutes massif of Mt. Fraser. ABC, 127, 128; A. J. xxxvii, 323; xxxviii, 56; App. xxiv, 385; C. A. J. xvi, 99; T., 217.

1924 first ascent by A. J. Ostheimer, M. M. Strumia, J. M. Thorington, *C. Kain.*

Route 1. From camp at Surprise point go S. to valley of Penstock creek and follow moraine and grass slopes to Fraser glacier. The ice and névé are ascended (rope unnecessary) to snow saddle (8000′; 2 h. 30 m.) between McDonell Peak and Mt. Erebus. A small glacial cirque and its shaly bounding ridges are crossed to head of Simon glacier (25′ conglomerate tower on E. lateral moraine). The glacier is ascended to its head and a small bergschrund crossed to rocks E. of its icefalls, which are then climbed to the Simon-McDonell col. The S. E. arête of Simon Peak is then followed over ice and snow (step-cutting; cornices to N. E.), with two snow eminences leading to rock summit. In descending, the route was retraced to the col, following which McDonell Peak (which see) was traversed.

Ascent 8 h.; summit of McDonell Peak 1 h.

Route 2. 1929, Miss H. A. Burns, E. R. Gibson, C. G. Wates. From Geikie meadows to tongue of Scarp glacier (3 h.). Ascend steep, crevassed tongue (crampons) for about two mi. and then up icefall on left into snow cirque bounded by the Simon-Scarp ridge, which is attained over 50° slopes. Follow arête to summit (7 h. 10 m.). The traverse was completed by crossing McDonell Peak and descending Fraser glacier (see under Route 1).

Ascent 10 h. 10 m.

Turret Mtn. (10200) (28)

(P) One mi. W. of Bastion Peak; one mi. E. of Mt. Geikie; between Tonquin and Geikie creek. ABC, 129, 131, 132; App. xx, 536; C. A. J. x, 75; xiv, 65; xvi, 55; J. P., 59, 91.

1926 first ascent by A. W. Drinnan, L. Grassi.

From camp on Geikie meadows (7150′), immediately S. of Barbican Peak. Follow contour one and a half mi. to E. to second of two small lakes (Black Inkwell) below Geikie-Turret col. The line of ascent is the couloir of the S. W. face, descending between the summit mass and the great W. tower. The couloir is reached from its W. side by ascending

steep rocks and a chimney to a point where a narrow ledge permits access, above overhangs which make direct ascent of the couloir inadvisable. The couloir is ascended nearly to its top, then bearing to the W. face of the peak, the summit being reached over very loose rock, held together by ice and snow.

Ascent 4 h. 30 m.; descent to lakes 2 h. 30 m.

Unnamed *(Campus).* (9200) (28)

(Ar) Two mi. N. E. of Angle Peak; E. of Eremite glacier; head of Campus creek. C. A. J. xiv, 60; H. M. i, 2, 72.

1926 first ascent by R. Cleveland, B. Gilman, B. Jefferson.

From camp in Campus valley at S. W. base of Blackhorn Peak, by the N. E. face and summit snow (step-cutting).

Unnamed *(Keystone).* (10100) (28)

(Ar-P) One mi. N. of Bennington Peak; S. W. of Paragon Peak; between head of Penstock creek and Bennington glacier. A. J. xxxviii, 59; App. xix, 244.

1924 first ascent by L. Coolidge, G. Higginson, J. E. Johnson, *A. Streich.*

From camp at Surprise Point follow trail S. and W. into valley of Penstock creek. Ascend glacier and higher trough-like couloir to col between Paragon Peak and objective summit. The N. E. arête is followed to the top over rock and steep snow.

Total time 14 h.

(In 1926 the col mentioned above was crossed by Miss M. Gold, F. N. Waterman, C. G. Wates, from Surprise Point, descent being made over Bennington glacier to Geikie meadows. Portions of the route are exposed to avalanches. C. A. J. xvi, 246.)

Unnamed *(Oubliette).* (10100) (28)

(Ar-P) Between Paragon and Dungeon Peaks. A. J. xxxviii, 55.

Vista Peak. (9169) (29)

(Ar-P) Between Tonquin creek (Fraser river) and head of Clairvaux and Meadow creeks (Miette river). ABC, 24, 25, 130; J. P., 50, 59, 91.

1917 first ascent by the Boundary Commission.

May be reached without difficulty from Moat lake (Tonquin pass; 6393') by way of the S. slopes. (Magnificent view of Rampart group; panorama, C. A. J. xii. 158.)

Part Three

YELLOWHEAD PASS TO JARVIS PASS

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PART THREE

SECTION XXV

Yellowhead Pass to Robson Pass

ROBSON GROUP

Yellowhead pass (3711′; Miette river to Fraser river), traversed by the main line of the Canadian National railroad, is the lowest depression crossing the Continental watershed between the International Boundary and Peace River pass. It was discovered about 1826 and its easy gradients made it extremely useful in the transport of heavy loads of dressed leather to the territory west of the mountains. The completion of rail through the pass in 1914-15 threw open an enormous area of alpine country and facilitated the conquest of Mt. Robson, the monarch of the whole Canadian Rocky chain.

Yellowhead pass was formerly known as *Leather* pass.

From Yellowhead pass the watershed swings northward for some ten miles and is then crossed by the three passages of Miette pass (S. 6850′, C. 6450′, N. 7174′; Miette river to Grant brook), the trail from Yellowhead pass running through the S. passage. Seven miles to the N. W. the divide is crossed by Grant pass (6355′; Snaring river to Grant brook), then makes a short loop southward and reaches Colonel pass (6135′; Snake Indian river to Colonel creek) three miles in airline to the N. W. The next crossing of importance is Moose pass (6570′; Calumet creek to Moose river), nineteen miles in airline N. W. of Colonel pass. The

watershed thus far has traversed park-like areas, with wide tracts of open grassland and groves of spruce, the rock escarpments encircling the basins and being accentuated at intervals by outstanding heights. The divide from Moose pass makes a great swing to the S., to round the head of Coleman glacier and Reef névé, reaching the Robson cirque as the summit of Lynx Mtn., and turns northward once more to form the E. retaining wall of Robson glacier and reach Robson pass. Airline distance from Yellowhead pass to Mt. Robson is twenty miles.

The Robson group fills in the great N. E. angle made by Robson river with Fraser river, an angle known from pioneer days as the *Grand Forks*. It is limited to the N. by Robson pass (5410′; Smoky river to Robson river) and Moose pass (6570′; Moose river to Calumet creek). The higher peaks, of which Mt. Robson (12972) is the loftiest, lie immediately W. of the main watershed.

In no other area of the Canadian Rocky mountains is the landscape so dominated by one peak. The S. W. side of Mt. Robson rises nearly 10000′ above Kinney lake, while its northern face towers more than a mile above the summit of Robson pass.

The location of the watershed here presented a special problem. Robson glacier formerly drained to both Lake Adolphus and Berg lake, on the Alberta (Ar) and the British Columbia (P) slopes respectively. It now appears, however, that owing to the retreat of the glacier all of the drainage is to Berg lake, and the watershed follows the E. retaining wall of Robson glacier.

The group supports numerous glaciers, of which Robson and Coleman are the chief, each about five miles in length. Robson pass (permanent camp) serves as a convenient base for numerous ascents and may be reached from the railroad in a single day with horses, from Robson station by way of Kinney lake.

The following appear to be the first references in literature to Mt. Robson:

1. Sellar: *Manuscript Journal* (1862)—"At 4 P. M. we passed Snow or Cloud Cap Mountain, which is the highest

and finest on the whole of the Leather pass. It is 9000 feet above the level of the valley at its base, and the guide told us that out of twenty-nine times that he had passed it he had only seen the top once before the time we passed it, and as the day was very clear we could see the top quite plain." (Quoted in Sierra xiv, 13.)

2. Milton and Cheadle: *The Northwest Passage by Land* (1865)—"On every side the snowy heads of mighty hills crowded round, whilst, immediately behind us, a giant among giants, and immeasurably supreme, rose Robson's peak. This magnificent mountain is of conical form, glacier clothed and rugged. When we first caught sight of it, a shroud of mist partially enveloped the summit, but this presently rolled away, and we saw its upper portion dimmed by a necklace of light, feathery clouds, beyond which its pointed apex of ice, glittering in the morning sun, shot up far into the blue heaven above, to a height of probably 10000 or 15000 feet. It was a glorious sight, and one which the Shushwaps of the Cache assured us had rarely been seen by human eyes, the summit being generally hidden by clouds."

3. A. R. C. Selwyn, Geological Survey of Canada: *Report of Progress* for 1871-72—Under date of October 23, 1871, he states that Mr Baltzly was not able to get a photograph of "the magnificent mountain, Robson's peak . . . which stands in the angle made by the Fraser Grand Forks, and rises with mural precipices to a height of two or three thousand feet (*sic*) above the river. Yesterday it was cloudless, and presented a truly splendid picture, while today it has been wreathed in mist and capped with clouds. Our Indian told us that their name for this mountain signified 'The lines in the rocks.' The whole face of the mountain and its various spurs and buttress-like projections in their upper portions, are marked out in horizontal lines, due to the unequal weathering and to the varying color and texture of the strata, which apparently consist of alternating calcareous and siliceous bands."

The Indian name *Yuh-hai-has-kun* is given on the authority of Dawson (Tr. R. S. C. 1891, ix, Sect. II, 37) and may be translated as "The mountain of the spiral road."

Neither the origin or the significance of the name *Robson* is known, although considerable research has been directed to this end by competent historians [Washington Hist. Quart. xix (1928), 20; C.N.R. Mag. (June, 1924), 13]. A Joseph Robson was the first surveyor of the Hudson's Bay Co. at Churchill and York Factory (1733-1747), and a Colin Robertson was with that company in 1815, leading an expedition into Athabaska territory. Robertson was a hunter and fur-trader, and patron of Francois Decoigne, who had charge of Jasper House in 1814. Under the auspices of Robertson, Decoigne joined the H. B. Co. in 1818, being still in the Athabaska department.

There appear to have been several individuals by the name of Robson in the employ of the H. B. Co. at various times. H. J. Moberly, a well-known Factor of the H. B. Co., wrote as follows: "Years before the Hudson's Bay Co. and the Nor'-West Co. joined (1821), it was the custom for the Nor'-West Co. to outfit a party for a two years' trip, hunting and trading. They went west and north, even as far as the border of California. One party, under the charge of Peter S. Ogden, some two hundred men, chiefly Iroquois and French Canadians. When west of the Rockies, he scattered his hunters in different parties under the charge of a foreman, to hunt for the season. One of his camps, under the charge of a man named Robson, was somewhere in the vicinity of this mountain, and it was the rallying point where all other parties came together for their return east." C. A. J. iv, 42.

The first white men to approach the actual base of the mountain were A. P. Coleman, L. Q. Coleman, G. B. Kinney and J. Boker, who reached the head of Robson river (Grand Fork of the Fraser) in 1900. The Colemans, Kinney and J. Yates returned in 1908 and reached Robson pass from Moose river. At that time it was necessary to bring outfits either from Banff or from Edmonton. The first circuit of the mountain was made in 1911 by the party led by A. O. Wheeler, which produced the first accurate map of the area.

The elevation of Mt. Robson has undergone progressive reduction: 13700′ (McEvoy, 1898); 13069′ (Wheeler, 1911); 12972′ (Boundary Commission, 1922).

Mt. Beaupre. (9115) (30)

(Ar) Four mi. N. E. of Miette pass (6450'; Miette river to Grant brook); S. E. angle terminating S. branch of Snake Indian river. ABC, 11.

Mt. Bridgland. (9600) (29)

(Ar) The outstanding tower in the N. E. angle of Miette river; six mi. N. W. of Yellowhead pass. ABC, 11.

Mt. Caledonia. (9370) (30)

(Ar-P) Two mi. S. of Miette pass, between Grant brook and Miette river.

The Colonel. (9140) (31)

(P) N. E. angle between Colonel creek and Moose river; two mi. N. W. of Colonel pass (6135'; Moose river to Snake Indian river). ABC, 12; A. J. xxvi, 393; C. A. J. iv, 25, 27.

1911 first ascent by A. O. Wheeler, *C. Kain.*

The Dome. (10098) (32)

(P) Robson cirque; one mi. S. E. of Mt. Robson; N. W. of Mt. Resplendent. A. J. xxv, 303; xxx, 360; Co., 324.

1908 first ascent by A. P. Coleman, L. Q. Coleman, G. B. Kinney, J. Yates.

From Robson pass, by way of the glacier, and ice and rock of the E. face.

Ascent 8 h. (In all of the early attempts on Mt. Robson from the E., the route led close to or over the summit of the Dome, which appears in some of the literature as "Helmet," but must be distinguished from the higher summit now bearing that name.)

The Helmet. (11160) (32)

(P) One mi. N. E. of Mt. Robson, a subsidiary peak of its eastern wall; between Berg and Robson glaciers; two mi. S. of Rearguard. A. J. xxv, 302; xxvi, 382; C. A. J. iv, 19.

1928 first ascent by Miss G. Engelhard, *Hy. Fuhrer.*

From Berg lake via the icefall of Berg glacier and the W. cliffs of Rearguard to an upper snow plateau leading to the Robson-Helmet saddle (10700'; 8 h.). Thence up steep ice to the summit cornice, which was traversed for 50'. Descent was made by the same route as far as the S. slopes of

Rearguard, whence the Robson glacier was gained and descended to Robson pass.

Ascent 9 h.; descent 3 h. 30 m.

Mt. Kain. (9392) (Wheeler, 1911)

(P) Three mi. N. of Resplendent station, C.N.R.; between Resplendent valley and Fraser river. A. J. xxvi, 382; C. A. J. iv, 22.

Lynx Mtn. (10471) (32)

(P) E. rim of Robson cirque; four mi. S. E. of Robson pass; between Robson and Coleman glaciers; head of Resplendent valley. A. J. xxvi, 390; xxxvii, 54; C. A. J. iv, 19, 254; T., 242.

1913 first ascent by O. Bourne, Miss L. DeBeck, Miss E. Fowler, A. R. Hart, H. H. Prouty, L. C. Wilson, *W. Schauffelberger.*

From Robson pass and glacier, crossing E. lateral moraine to W. glacier of objective peak. This is ascended without difficulty to the col at its head and the S. W. scree arête followed to the summit.

Ascent 6 h.

Mt. Machray. (9020) (30)

(Ar-P) One mi. W. of Grant pass (6355'; Grant brook to S. branch of Snake Indian river). ABC, 10.

Mt. Mahood. (9500) (30)

(Ar) Three mi. N. E. of Miette pass; one and one half mi. S. E. of Mt. Beaupre.

Mt. McNaughton. (9530) (30)

(P) Between E. terminal fork of Moose river and head of Grant brook.

Mt. Mowat. (9329) (30)

(P) N. E. angle between Moose and Fraser rivers. A. J. xxvi, 382; C. A. J. iv, 59.

1911 first ascent by A. O. Wheeler, *C. Kain.*

From the Fraser valley via Grant brook and S. slopes.

Rearguard. (9000) (32)

(P) Between Berg and Robson glaciers, forming S. shore of Berg lake. A. J. xxvi, 390; C. A. J. iii, 173; vi, 65.

1913 first recorded ascent by members of A. C. C. (names of party unknown).

Route 1. From Robson glacier, an easy ascent over the S. scree slopes.

Route 2. The mountain was ascended in 1924 by several parties of the A. C. C. by way of a conspicuous couloir in its N. face, a route subject to stonefalls.

Mt. Resplendent. (11240) (32)

(P) Three mi. S. E. of Mt. Robson; head of Robson cirque; between Kinney lake (Robson river) and head of Resplendent creek. ABC, 26, 29; A. J. xxvi, 390; C. A. J. iii, 173; vi, 65.

1910, attempted ascent by J. N. Collie, A. L. Mumm, *M. Inderbinen.* A. J. xxv, 467.

1911 first ascent by B. Harmon, *C. Kain.*

Route 1. From Robson pass ascend Robson glacier to the head of the cirque, passing the icefall (2 h.) on its E. side near the base of the Extinguisher. Ascend rising slopes of névé (crevasses) to the W. col (9600′), whence the W. snow slopes are followed to the corniced summit.

Ascent 8 h.; descent 3 h. 30 m.

Route 2. 1913, H. H. Prouty, J. Watt, *W. Shauffelberger.* As in Route 1 until a half mi. past the Extinguisher, then bearing sharply E. to a descending rock ridge from the N. arête, which is gained and followed, traversing several difficult pinnacles on their W. side (this portion often icy). The main N. arête is gained (5 h.) and followed over ice and snow (2 h.) to the final 1000′ snow dome, the base of which is crossed and the summit gained from the W.

Ascent 8 h.

Route 3. 1915, A. J. Gilmour, E. W. D. Holway (to top of arête); 1920, W. A. D. Munday, Mrs. W. A. D. Munday (complete ascent). As in Route 1 until the base of the mountain is reached; then, instead of ascending to the W. col, an ice slope (step-cutting) is ascended to the rudimentary N. N. W. rock ridge at 9800′. This is followed closely (firm rock, with short chimneys and walls) to the upper snow (6 h. 30 m.). Thence over steep slopes to the summit (1 h. 30 m.). A. J. xxxvii, 53, 396; T., 241.

Ascent 7 h. 45 m.; descent by Route 1, 4 h. 20 m.

Mt. Robson. *(Yuh-hai-has-kun).* (12972) (32)

(P) Highest peak of the Canadian Rocky mountains; head of Robson (Grand Fork of the Fraser) river; S. of Robson pass and Berg lake. A. J. xxxii, 393; App. xii, 112; C. A. J. iv, 2; x, 22; xiii, 146; xiv, 113.

The status of the early attempts and their routes as they existed at the end of the season 1913 have been summarised by A. L. Mumm (A. J. xxx, 358) and may be tabulated as follows:

1. 1908, A. P. Coleman, L. Q. Coleman, G. B. Kinney, J. Yates. A frontal attack on the S. E. spur, from Robson glacier, attaining the summit of the Dome (10098'), which see.

2. 1908, G. B. Kinney. A sporadic, solitary attempt from the N. W.

3. 1908, A. P. Coleman, L. Q. Coleman, G. B. Kinney. A further attempt of the E. wall, the bergschrund above The Dome being reached. (C. A. J. ii, 1, 15; Co., 322, 334, 355; G. J. xxxvi, 57.)

4. 1909, G. B. Kinney, D. Phillips. The summit ice-cap attained from the W. face. From camp at W. end of Berg lake. Go up cliffs and narrow ledges of the N. shoulder to a big shale slope on the N. W. side of the mountain. Thence ascend over cliffs and shale to the top of the W. shoulder and camp (10500'). From this point work S. over snow and steep rock, several ridges of the W. face being crossed to the first of two cliffs which form horizontal ramparts all around the peak. This is ascended without difficulty and steep snow slopes above are crossed to the second rampart which must also be surmounted. Above this, very steep slopes (60°) and broken rock are climbed to a point near the summit. Phillips (quoted by Kain) stated, "We reached on our ascent (in mist and storm) an ice-dome fifty or sixty feet high, which we took for the peak. The danger was too great to ascend the dome." C. A. J. ii, 2, 21; Co., 349.

5. 1909, L. C. S. Amery, G. Hastings, A. L. Mumm, *M. Inderbinen.* A further attempt on the E. wall, a point some distance above the bergschrund being attained. A. J. xxv, 243; C. A. J. ii, 2, 2; Co., 353.

6. 1913 (July 31) first ascent by A. H. MacCarthy, W. W. Foster, *C. Kain.*

From camp on margin of Robson glacier at base of the Extinguisher, proceed W. (as in Route 1 for Mt. Resplendent) and ascend the S. snow and ice slopes of The Dome to its summit (10098'; 3 h. 15 m.). Descend slightly to the bergschrund at the foot of the main E. wall of Mt. Robson. Cross the schrund and ascend the steep slope of rock and ice (60-65°; more than 200 steps were cut) to the top of the S. E. shoulder (11500'; 5 h.). Follow the arête towards the W. by means of steps cut just below the crest on the S. W. side. Ascend the main peak via very steep terraces of snow and ice on the S. E. face. This portion of the climb required the cutting of about 600 steps (5 h.).

Descent was made by the same route as far as the shoulder of the S. E. arête and then, instead of going down the E. wall into the Robson cirque as in the route of ascent, the E. margin of the S. glacier was followed to gain the rocks on its E. side (crevasses and dangerous bergschrund). A bivouac (ca. 9000') was necessary at this point, and on the day following a descent of 800' (3 h.; difficult) over loose rock, and a traverse of 500' below hanging glacier led to the S. S. W. arête, whence long shale and timbered slopes extend down to Kinney lake.

Ascent 13 h.; descent 9 h. A. J. xxviii, 35; C. A. J. vi, 11, 19.

7. 1913, B. S. Darling, H. H. Prouty, *W. Schauffelberger.* Attempt via the S. W. (Wishbone) arête. From a camp a half mi. above Emperor falls, ford stream and ascend the sloping terrace of scree to the great talus fan (two mi. wide and 2000' high), crossing it (2 h.) to a bivouac at 8500'. On following day traverse the avalanche fan and cross yellow band of rock to the crest of the W. arête at 8400'. The first 500' of the ridge consists of rotten yellow rock, but the remainder is firmer grey and black rock. Ascend over the staircase formation of the ridge to the ice cap (12000'; 12 h.). Here step-cutting commences; at 12500' the ridge narrows and is hemmed in by cornices on both sides so that alternate slopes of the arête (50-60°) must be utilized.

Ascent to a point 400′ below summit (6.15 P. M.), 14 h. In descent a bivouac was made at 11000′, and next day the ridge descended for 500′ and a traverse made across its S. face to the great couloir of the S. W. face at 10200′. This was descended to 9000′, where the yellow rock was retraversed N. to the first bivouac (8 h. 30 m.). A. J. xxviii, 37; C. A. J. vi, 29; Mazama iv, 2, 21.

8. 1913, B. S. Darling, A. H. MacCarthy, *C. Kain, H. Schauffelberger.* Attempt via the S. S. W. arête. One mi. below foot of Berg lake (5500′) ascend a steep clay slope and a rock-step couloir to the first broad ledge below the grey slate bluffs (1 h.). Proceed along the ledge (6600′) for 200 yards to the right, to a second couloir of scree and rock steps (1000′), giving access to the second broad ledge below the yellow band of rock (7600′; 1 h.). Follow this ledge for a half mi. S. W. and climb a Y-shaped couloir (waterfall) to the third ledge (8000′; 45 m.). Advancing along the base of the great talus slope for 1 h., a small glacier surrounded by high moraines is reached and in 30 m. more the base of the S. W. (Wishbone) arête. Traversing around this (45 m.) a bivouac is made just before reaching the great couloir of the S. W. face. Next day the couloir was crossed and the S. W. buttress rounded at 8600′ to the foot of the glacier. The S. S. W. arête was then followed (1700′) to the neck of snow joining this arête, to the ice-cap, at 10500′. Here the glacier overtops the arête and the great couloir must be crossed, beneath the ice cliffs. The rock was then ascended to the final dome of the mountain at 12500′, where the route joins that from the S. E. used in the first complete ascent. Bad weather forced a return at this point.

Ascent 5 h. 30 m. from foot of arête. A. J. xxviii, 38; C. A. J. vi, 29 (diagram facing p. 40).

The ascents in 1924 were made by a variant of this route. A high camp was made at timberline at the base of the S. S. W. arête and was reached by trail from Kinney lake. The first crossing of the great couloir was made immediately under the ice-cap, after which the parties turned E. and cut a way up the S. E. slopes of the ice-cap to the

summit. V. A. Fynn (A. J. xxxvi, 420) expressed his opinion that this route is easy, but unnecessarily risky. A. J. xxxvii, 47, 59; C. A. J. xiv, 14; T., 229.

In conclusion it may be said that a sound route on Mt. Robson has yet to be discovered. In its final form it will probably begin at Kinney lake and follow the S. W. (Wishbone) arête, which offers sound rock, free of falling ice. This arête may be reached from a high camp on the S. S. W. arête as in the 1924 route, the crossing of the great couloir in its lower portion being not subject to much danger. It is also possible that the S. S. W. arête in certain years will be easier, a break in the ice-cap allowing a direct passage without the necessity of crossing the great couloir below overhanging ice.

[Marked photographs will be found in A. J. xxviii, 36, 37; xxxvii, 60, 61.]

Mt. Salient. (9220) (30)

(Ar-P) Head of Grant brook; W. pass between Miette river and S. branch of Snake Indian river. ABC, 10.

Titkana Peak. (S. E. 9283; N. W. 9140) (32)

(Ar-P) S. E. buttress of Robson pass (5417'; Smoky river to Robson river); the summits are one mi. apart and extend N. W. from Lynx Mtn., forming the E. wall of Robson glacier and separating it from Coleman glacier. ABC, 173; A. J. xxvi, 382; C. A. J. iv, 37; Co., 319.

1908 first ascent by L. Q. Coleman.

Ascended without difficulty from Robson glacier.

Mt. Upright. (9700) (31)

(Ar-P) Eight mi. S. E. of Moose pass (Moose river to Smoky river); five mi. W. of pass between S. and middle branches of Snake Indian river. ABC, 12; A. J. xxvi, 382; C. A. J. iv, 28.

SECTION XXVI

Robson Pass to Bess Pass

WHITEHORN GROUP

Facing Mt. Robson and its satellites, across the valley of Robson river to the W. and N. this group extends in an irregular curve for some ten miles from Robson pass to and beyond Mt. Whitehorn (11130), the dominating peak. The watershed follows the crest from Robson pass to Mt. Phillips, thence turning abruptly northward for four miles, when it is crossed by Carcajou pass (5120'; Carcajou creek to Holmes river). It then continues eight miles further N. W. over minor summits to Bess pass.

With the group are included peaks E. of Smoky river and N. of Moose pass, while immediately W. of Mt. Phillips, Swift Current pass (7600') and glacier bound the group on that side.

Two mountaineer passes cross the crest-line of the group: the first, one and a half miles W. of Mumm peak, leading to Mural glacier; the other between Mt. Phillips and Whitehorn Mtn. giving access (difficult) to Swift Current glacier.

The Longstaff cluster of peaks forms a linked extension to the W., rising across the basin of Swift Current glacier and comprising a line of glaciated summits about ten miles in length, of which Mt. Longstaff (10440) is the chief. The valley of Small river bounds the group on the W.

The main Swift Current glacier, which receives a sizeable tributary from the S. E. slopes of Mt. Longstaff, has an extreme length of nearly six miles, and an area of about

fourteen square miles. The best approach from the railroad to this portion of the group is up Swift Current Creek, where horses may be taken (heavy timber) to the amphitheatre below the glacier tongue.

Calumet Peak. (9766) (32)

(Ar) Three mi. N. of Moose pass (6570'; Moose river to Smoky river). ABC, 12; A. J. xxvi, 382; C. A. J. iv, 21.

1922 first ascent by Boundary Commission.

Gendarme Mtn. (9586) (32)

(Ar) Three mi. N. W. of Mumm peak; three mi. N. E. of Mt. Phillips; N. rim of Mural névé. ABC, 23; A. J. xxvi, 382; C. A. J. iv, 34, 155.

1911 first ascent by A. O. Wheeler, *C. Kain.*

Mural glacier may be reached from Robson pass, via the col one and a half mi. W. of Mumm peak, or from Smoky river by way of the emergent stream. The peak may be easily ascended by its S. slopes.

Hoodoo Peak. (9000)

(Ar) Head of middle fork of Stony river; two mi. S. E. of Stony pass (Snake Indian river to Smoky river). A. J. xxvi, 14; App. xii, 343; C. A. J. iv, 137; G. J. xxxix, 228.

1911 first ascent by J. N. Collie, A. L. Mumm, J. Yates, *M. Inderbinen.*

A rock climb, by way of the W. face; last 500' difficult.

Mt. Longstaff. (10440) (33)

(P) Four mi. N. W. of Whitehorn Mtn.; three mi. W. of Mt. Phillips; between sources of Small and Swift Current rivers. ABC, 23, 44; A. J., xxvi, 382; App. xv, 1; C. A. J. iv, 35; viii, 133.

1916 first ascent by A. J. Gilmour, E. W. D. Holway, H. Palmer.

From Fraser valley, via Swift Current river. From camp (5800') W. of tongue of Swift Current glacier, follow ice to E. ridge over which the summit is gained without difficulty.

Ascent 7 h.; descent 5 h.

1915, A. J. Gilmour, E. W. D. Holway. Attempt from W., ascending steep rocks from bottom of Small river valley, the N. W. arête was reached at 9700′; an ice slope blocked the way and the party turned back some 200′ below the summit.

Mumm Peak. (9718) (32)

(Ar-P) N buttress of Robson pass (5417′; Smoky river to Robson river); between Berg lake and Mural glacier. ABC, 27, 75; A. J. xxv, 467; xxvi, 10; App. xii, 341; C. A. J. iii, 173; vii, 63; G. J. xxxix, 226.

1910 first ascent by J. N. Collie, A. L. Mumm, *M. Inderbinen.*

From Robson pass, via scree slopes of S. face. Snow-slopes and a short chimney just below the summit.

Ascent from Robson pass, 4 h.

Palu Mtn. (9610) (33)

(Ar) S. angle between Carcajou creek and Smoky river; N. W. of Gendarme Mtn.; one mi. E. of Carcajou pass (5120′; Carcajou creek to Holmes river).

Mt. Phillips *(Revolution).* (10660) (32)

(Ar-P) Three mi. N. of Whitehorn Mtn.; four mi. S. of Carcajou pass (5120′; Carcajou creek to Holmes river). ABC, 23, 41; A. J. xxv, 467; xxvi, 10; App. xii, 341; xv, 9; xix, 237; C. A. J. iii, 173; G. J. xxxix, 226.

1910 first ascent by J. N. Collie, A. L. Mumm, F. Stephens, G. Swain, J. Yates, *M. Inderbinen.*

Route 1. From a camp near timberline N. W. of Berg lake, over the E. glaciers of the peak.

Route 2. 1916, A. J. Gilmour, E. W. D. Holway, H. Palmer. From W., starting from a camp W. of tongue of Swift Current glacier. The main glacier is followed to a small glacier issuing from a pocket of the S. W. slope, and the crevassed icefall of the latter ascended. A steep snow-curtain leads to the snowy-domed summit.

Ascent 8 h.; descent 3 h.

Unnamed. (9900) (32)

(Ar-P) Central and highest point between Mumm peak and Mt. Phillips; one and a half mi. S. of Gendarme Mtn.; S. margin of Mural glacier. A. J. xxvii, 356; C. A. J. vi, 238.

1913 first ascent by F. W. Godsal, A. L. Mumm, Miss P. Pearce, *M. Inderbinen.*

From Robson pass, over scree slopes and the crevassed S. glacier.

Unnamed *(Pamm).* (9400) (32)

(Ar) Three mi. N. W. of Moose pass; two mi. W. of Calumet peak. C. A. J. vi, 189; Sierra x, 272.

1913 first ascent by L. Jeffers, D. Phillips, and party of A. C. C.

A snow peak reached from Moose pass by way of the S. glacier.

Unnamed *(Saurian).* (9500) (32)

(Ar-P) One mi. S. W. of Mumm peak; two mi. N. of Berg lake. C. A. J. vi, 238, 254.

1913 first ascent by W. E. Stone, *W. Schauffelberger,* and four others.

From Mural glacier, via rock and snow of N. E. arête. Last 100′ to summit is ascended by means of short rock faces and chimneys. Descent on S. (to Robson pass) is made through two chimneys; thence over talus under high cliffs.

Unnamed.

(P) N. W. of Mt. Longstaff stand two nameless peaks, each about 9700′ in elevation. On the S. side along the crest of the range are four others, in altitude approximately 9400′, 9800′, 9300′, 9330′, in order from N. to S.

Of these, Points 9400′ and 9800′ were ascended in 1915 by A. J. Gilmour, E. W. D. Holway from a camp on Holmes river (C. A. J. vii, 65). The third, Point 9300′, was ascended in 1916 from the Swift Current glacier by A. J. Gilmour, E. W. D. Holway, H. Palmer (App. xv, 11).

Whitehorn Mtn. *(Turner).* (11130) (32)

(P) Between Valley of a Thousand Falls (Robson river) and Swift Current glacier; five mi. S. E. of Mt. Longstaff; three mi. S. of Mt. Phillips. ABC, 23, 44; A. J. xxvi, 382; App. xxiii, 338; C. A. J. iv, 47; vi, 49, 52, 55; Sierra xiv, 25.

1911 first ascent by *C. Kain.*

Route 1. From Robson pass, camp at head of Valley of a Thousand Falls. Ascend steeply through underbrush and over boulders to the N. E. glacier, which is crossed over the icefall to the foot of the E. wall. Ascent via the upper, crevassed glacier to the col (Whitehorn pass), cross and descend to the W. glacier, which is traversed to the W. arête. Cross the crest of the arête and ascend by way of the rocks on its S. side to within 200′ of the summit, where a steep wall necessitates a short traverse on snow and ice. Then up a difficult 10′ chimney to the summit.

Ascent 12 h.

Route 2. 1913. F. S. Bourne, Miss J. Broadbent, Miss L. DeBeck, Miss E. Fowler, H. O. Frind, A. R. Hart, H. M. Johnson, W. E. Stone, Miss J. B. Wilcox, L. C. Wilson, *C. Kain.* The peak was traversed, descending by the S. E. glacier and traversing N. E. along the Valley of a Thousand Falls to regain the route of ascent (C. A. J. vi, 55.

Wolverine Mtn. (9110) (33)

(Ar) N. E. angle of Swoda creek and Smoky river; opposite mouth of Chown creek. ABC, 23.

1923 first ascent by the Boundary Commission.

SECTION XXVII

Bess Pass to Jackpine Pass

RESTHAVEN GROUP

This compact group extends northward from a short section of the watershed extending slightly more than four miles from Bess Pass (5330'; Chown creek to Holmes river) and Jackpine pass (3694'; Jackpine river to Holmes river). All of its peaks, with the exception of Mt. Bess, lie on the Alberta (Ar) slope and group themselves about the Resthaven icefield and Chown glacier, which discharge to Smoky river. Mt. Chown (10930), in the centre of the group, is the highest peak, the surrounding glaciation exceeding twenty-five square miles.

Four routes give access to the mountain area N. of Mt. Robson. The eastern route, by way of Snake Indian and Sulphur rivers to Smoky river is the best and easiest, as there is good horse feed. A second route, with bad trail and steep hills, leads from Yellowhead pass by way of Mixtte, Grant, Colonel and Moose passes. A third route to the Smoky leads from Robson station to Robson pass.

A trail leads down Smoky river, with a branch up Chown creek and across Bess and Jackpine passes, which is a difficult route on account of swamps and mudholes.

A fourth route is from McBride, in the Fraser valley, eventually leading down Renshaw creek and branching at Beaverdam pass to join the Jackpine valley route.

Barricade Mtn. (E. 10200; C. 10400; W. 10300) (34)
(Ar) Two mi. W. of Mt. Chown; S. rim of Resthaven icefield; three mi. N. W. of Jackpine pass.

Mt. Bess. (10550) (33)
(Ar-P) The most northerly peak of the Alberta-British Columbia boundary to exceed 10000′. N. buttress of Bess pass (5330′; Chown creek to Holmes river); E. buttress of Jackpine pass (6094′; Jackpine river to Holmes river). ABC, 20; A. J. xxvi, 14; xxxi, 133; App. xii, 347; C. A. J. iv, 34, 137; vii, 98; xvi, 201; G. J. xxxix, 231; Bull. Am. Geogr. Soc. xlvii, 482.
1911 first ascent by J. N. Collie, A. L. Mumm, J. Yates, *M. Inderbinen.*
From Bess pass, W. to top of a spur (where a cairn was built, visible against skyline). Thence up limestone and slopes of steep snow, to reach S. W. arête high up, which is attained over several precipitous bands of rock, with ice-work in the gullies. The arête is then followed to the flat summit.

Mt. Chown. (10930) (34)
(Ar) Four mi. N. W. of Mt. Bess; two mi. N. of Jackpine pass (6094′; Jackpine river to Holmes river) between head of Chown glacier and Resthaven icefield. ABC, 21; A. J. xxvi, 390, 396; C. A. J. iv, 21, 179, 191; xiii, 154; Bull. Am. Geogr. Soc. xlvii, 482.
1924 first ascent by G. Hargreaves, W. B. Putnam.
Route 1. By way of Chown glacier and S. E. slopes.
Route 2. 1929, Miss H. I. Buck, A. J. Gilmour, N. D. Wafil. From camp at head of Jackpine river the subsidiary N. W. summit (9569′) was ascended and its N. E. ridge descended to Chown glacier at 8500′. The Barricade-Chown col was reached and snow slopes followed to summit.
Ascent 9 h. 30 m.

Resthaven Mtn. (N.E. 10253; S.W. 10100) (34)
(Ar) N. margin of Resthaven icefield; four mi. E. of Saurian Mtn. ABC, 47.
1923 first ascent by the Topographical Survey.

Saurian Mtn. (9896) (34)

(Ar) E. of Jackpine river; four mi. W. of Resthaven Mtn.

Unnamed. (10200) (34)

(Ar) Two mi. N. W. of Barricade Mtn.; E. of Jackpine river; S. W. margin of Resthaven icefield. A. J. xxvi, 13; App. xii, 345; C. A. J. iv, 137; vii, 83; G. J. xxxix, 230.

1911 first ascent by J. N. Collie, A. L. Mumm, *M. Inderbinen.*

Route 1. By way of the main tongue of Resthaven icefield and its N. margin. Two mi. from the snout of the first icefall is encountered, and the second one mi. further on. The latter is dangerous, although moderately easy to cross. The glacier and névé are traversed for four mi. to the base of the peak, ascending its S. arête partly over rock and partly over snow.

Route 2. 1929, Miss H. I. Buck, A. J. Gilmour, N. D. Watt. From camp near head of Jackpine river, a long traverse at timberline was made along the E. side of the valley and the mountain approached from the glacier on its S. W. side. The S. arête is reached by a long snow tongue and a face of loose rocks and leads directly to the S. E. summit which appears to be the highest point.

Ascent from glacier, 3 h.

Unnamed. (10100) (34)

(Ar) W. margin of Resthaven icefield; two mi. S. W. of Resthaven Mtn.; three mi. S. E. of Saurian Mtn.

SECTION XXVIII

Jackpine Pass to Jarvis Pass

SIR ALEXANDER GROUP

From Jackpine pass (6094′; Jackpine river to Holmes river), the watershed swings westward from the Bess group for ten miles and then turns N. for an equal distance and reaches Loren Lake pass (5059′; Meadowland creek to Chalco creek). It then makes an irregular swing to the N. W., and in an airline of six miles arrives at Beaverdam pass (4974′; Beaverdam creek to Renshaw creek). In this entire stretch no peak attains to 9000′; the hillsides show much open alpland and many shale slopes, with the higher elevations rising in rocky crests. Three miles N. of Beaverdam pass the watershed is crossed by Avalanche pass (5195′; Avalanche creek to Morkill river) and then makes a loop of some seven miles to the E. and an equal distance northward to Morkill pass (5434′; Muddywater river to Morkill river). In an irregular course of nine miles N. W. the watershed is crossed by Fetherstonhaugh pass (5924′; Fetherstonhaugh creek to Morkill river), Forgetmenot pass (5899′; Fetherstonhaugh creek to Forgetmenot creek), and Casket pass, 5386′; Sheep creek to Morkill river).

The summit of the latter lies 500′ S. W. of a little lake by which the trail passes, and the watershed then ascends the N. E. ridge of Intersection Mtn. (8075′) and passes over its summit, 50′ to the W. of which the 120th Meridian intersects the watershed.

According to the Imperial Act, "the most northerly crossing of the meridian" is agreed upon as the point at which the International Boundary ceases to follow the summit of the Rocky Mountains but follows the 120th Meridian.

From Intersection Mtn. the main watershed enters British Columbia, and in an irregular N. W. course of three miles is crossed by Sheep pass (5372′; Sheep creek to Bastille creek), thence turning N. for eight miles to Cecilia Lake pass, on the eastern side of which Cecilia lake, two miles in length, drains to Kakwa river. Three miles in airline to the W. is Kakwa pass (6165′; Kakwa river to Fraser river). Three miles to the N. is Kakwa lake, three miles long, draining to Kakwa river. The watershed now passes westward of the mapped area, but is crossed by Jarvis pass (Jarvis creek to Fraser river) some ten miles in airline to the N. W. The pass summit contains no less than six small lakes.

The first recorded crossing of this northern section of the watershed was made during the winter 1874-75 by E. W. Jarvis and C. F. Hannington, surveyors of the Canadian Pacific railroad. The party, consisting of eight men and six dog trains, left Fort George on the Fraser and reached the Divide on February 25. From this point they were obliged to go on foot, and reached Jasper House on March 5, to find it unoccupied. They continued their journey and reached St. Anne in twelve days. [Canadian Archives (1887), cx, cxxxii; C.P.R. Report of 1877; Tr. R.S.C. (1889), 89.]

We have thus traced the watershed for an airline distance approximating eighty-five miles from Jackpine to Jarvis pass, in the whole length of which no peak attains an elevation of 9000′.

The Sir Alexander group proper is circumscribed and situated immediately S. and W. of Jarvis pass, entirely on the Fraser (P) slope. Mt. Sir Alexander (10900) is the highest peak.

The best route of approach is from Devona, C.N.R., up the Snake Indian river, Willow creek, North Hay river, Eagle's Nest pass, down Sulphur creek, up Kavass creek, and down small stream to Smoky river. Cross Smoky and

Muddywater rivers and ascend Sheep creek to Cecilia Lake and Kakwa passes. The watershed is finally crossed to Thunder valley, which is the middle of three branches forming the S. fork of Big Salmon river.

The area of ice and snow around Mt. Sir Alexander is estimated at 35 square miles. The group, together with a nameless group lying to the north, at the headwaters of the N. branch of Porcupine river, constitutes the northern termination of the alpine portion of the Canadian Rocky mountains. The glaciated area of the nameless group seems to extend for fully 20 miles (App. xiii, 255), a portion of it being drained by the S. branch of Wapiti river.

From Mt. Joffre, at the head of Elk river, to this area is 330 miles in airline; from Mt. Robson it is more than 80 miles. Ten days of steady travel is the minimum required from railroad, provided there is low water in the Smoky river. Twelve or thirteen days should be allowed.

Map reference: Canadian Rocky Mountains (52° 53′—54° 9′ N.), Bull. Am. Geogr. Soc. (1915) xlvii.

Mt. Ida. (10472)

(P) Directly S. of Jarvis pass (Kakwa river to Fraser river), and W. of the watershed. ABC, 66; App. xiii, 251, 252; C. A. J. vi, 177, 196; xiii, 153.

Mt. Sir Alexander *(Kitchi).* (10900)

(P) Eighty mi. N. W. of Mt. Robson; seven mi. S. of Mt. Ida; S. W. of Jarvis pass (Kakwa river to Fraser river); at head of terminal forks of S. branch of Big Salmon (Fraser) river. ABC, 3, 66; App. xiii, 283; xiv, 223; C. A. J. vi, 170, 188; vii, 82; ix, 79; xiii, 133; xviii; Bull. Am. Geogr. Soc. xlvii, 481; Outdoor Life, Jan., 1925.

1915, F. Doucette, D. Phillips, J. C. Tyler. Attempt from N., via N. E. arête, the party being blocked by the summit cornice, not far below the top.

1929 first ascent by Miss H. I. Buck, A. J. Gilmour, N. D. Waffl.

Base camp was established at head of Thunder valley (4300′), the middle of three branches which form the S. branch of Big Salmon river. A steep moraine was ascended

to a col on the ridge S. of the valley; on the other side is a long glacier leading to the E. and N. sides of the mountain. At the head of the glacier a high camp was placed on an outcrop of rock (7400′). Cross the snowfield S. W. and upper part of the N. W. glacier to the foot of a steep icefall, which was ascended (step-cutting) and the N. W. ridge passed on the snowfield (3 h. 30 m.). The climb was made on the N. part of the W. face, keeping to the left to arrive at a narrow couloir which is the only break in the band of precipitous rock on that part of the mountain. The difficult couloir was ascended (7 h.), after which it was easy to climb the upper snow slope to the S. W. arête, reached just below the summit ice cornice which extends along the entire crest. The third ice hummock from W. appeared to be the highest and was attained (1 h. 20 m.).

Descent was made via the S. W. ridge and the rocks on the S. part of the W. face, working out towards the centre. Lower down a turn was made to S. and snow reached at the upper end of a tongue leading to the snowfield below (3 h. 45 m.). Route of ascent was regained by skirting the W. face and the steep icefall descended, three rope-offs being used (1 h. 30 m.).

Ascent 12 h.; total time 21 h. 40 m.

A REVISED LIST OF NAMED PEAKS OF THE CANADIAN ROCKIES EXCEEDING 11,000 FEET IN ELEVATION, ARRANGED IN ORDER OF HEIGHT

Robson	12,972
Columbia	12,294
Twin, N.	12,085
Clemenceau	12,001
Forbes	11,902
Alberta	11,874
Assiniboine	11,870
Goodsir, S.	11,686
Twin, S.	11,675
Temple	11,636
Goodsir, N.	11,565
Bryce, W.	11,507
Kitchener	11,500
Lyell, 3	11,495
Lyell, 2	11,495
Hungabee	11,457
Athabaska	11,452
King Edward	11,400
Brazeau	11,380
Lyell, 1	11,370
Victoria, S.	11,365
Snow Dome	11,340
Stutfield	11,320
Unnamed (Columbia Icefield)	11,300
Joffre	11,274
Lyell, 4	11,260
Resplendent	11,240
Deltaform	11,235
Tsar	11,232

Lefroy	11,230
King George	11,226
Alexandra	11,214
Sir Douglas	11,174
Woolley	11,170
Helmet	11,160
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Lyell, 5	11,150
Lunette	11,150
Hector	11,135
Whitehorn	11,130
Bryce, C.	11,100
Diadem	11,060
Huber	11,051
Willingdon	11,044
Edith Cavell	11,033
Cline	11,027
Fryatt	11,026

Analysis of these figures shows that of the fourteen peaks located south of the C.P.R., seven occur in the Lake Louise area; of the twenty-nine between the C.P.R. and the C.N.R., seven are found in the Forbes-Lyell sector, and thirteen in the Columbia icefield region. North of the C.N.R. there are but four, adjacent to and including Robson, indicating the comparative isolation of the highest peak of the Canadian Rocky mountains and the rapid diminution of elevation toward the north.

So much is now known of Canada's Rocky mountains that no new peaks above 11000′ are likely to be discovered, although revision of base levels or triangulation in the future may raise some known summits into this category.

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INDEX OF PASSES

The general appearance of nearly all passes through the Canadian Rocky Mountains is that of a U-shaped trough, with more or less steep rock walls on either side and a varying width of valley floor. All of the more important are timbered. The main lines of travel in general follow the longitudinal valleys, parallel to the main range, chiefly on the Alberta side, the greater growth of timber on the western slope being a formidable obstacle to the development of trails. The main watershed is crossed by but few passes suitable for horses, except in the extreme northern area where sections of the range become sub-alpine. For these reasons, climbing camps and centres are usually placed on the eastern slope, and even the mountaineering passes or cols are utilised more as routes to adjacent peaks than as depressions to be crossed in the true sense of an alpine traverse.

The characteristics of individual passes in the Canadian Rocky Mountains are described in the text-volumes of the Interprovincial Boundary Commission, and have been summarised in a single paper by R. W. Cautley, representing the Dominion Government and the Government of Alberta during the course of this survey (C. A. J. xii, 155).

In this guidebook, the mountaineering passes, where they exist, are mentioned in supplementary paragraphs in connection with the principal adjacent peaks. In addition, the passes have been indexed below, the names being followed by bracketed letters indicating the watershed traversed. The list is not exhaustive and further details will be found under individual sections.

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Didsbury
Olds
Innisfail
Sundre
Rocky Mountain House
Banff
Canmore
Revelstoke
Nelson
Cranbrook
Fernie
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Mt. Fryatt
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Manitoba
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British Columbia
Yukon Territory
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Montana
Idaho
Washington
North Dakota
Minnesota
Pacific Ocean
Arctic Ocean
54°
53°
52°
51°
50°
49°
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118°
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113°